

INEEL PUBLIC MEETING ON PROPOSED CLEANUP
PLAN FOR IDAHO CHEMICAL PROCESSING PLANT
(INTEC)

BOISE, IDAHO

Wednesday, November 18, 1998

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PUBLIC COMMENT

	PAGE
ALLISTER, PAMELA	94
RAMONO, STEVE	89

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1 BOISE, IDAHO, WEDNESDAY, NOVEMBER 18, 1998

3 MR. SIMPSON: Welcome and thanks for
4 your interest in attending this meeting tonight.
5 I'm Erik Simpson. I'm the INEEL Community
6 Relations Plan coordinator for the INEEL
7 Environmental Restoration program.

8 We're here tonight to discuss the
9 Waste Area Group 3 Remedial Investigation and
10 Feasibility Study, and the proposed plan that
11 resulted from that investigation. Waste Area
12 Group 3 is the Environmental Restoration Program
13 designation for the Idaho Nuclear Technology and
14 Engineering Center, and many people refer to it
15 formerly as the Chem Plant.

16 This is the fifth facility-wide
17 environmental investigation that we've completed at
18 the INEEL. And we have four more to go under our
19 Federal Facility Agreement and Consent Order.
20 Since this is really probably the most complex site
21 that we have investigated thus far, DOE and EPA and
22 the State of Idaho already have extended the
23 comment period an additional 30 days, and it will
24 end December 22nd.

25 I guess I would like to remind people to

1 PUBLIC COMMENT

2 PAGE

3 ALLISTER, PAMELA

94

4 RAMONO, STEVE

89

1 make sure to sign in just so we can get you the
2 Record of Decision when that is signed later on.

3 The last time we held a clean-up meeting
4 here in Boise was this last February when we were
5 discussing the Test Area North Remedial
6 Investigation and Feasibility Study. The proposed
7 plan for that investigation was revised at the
8 public's request and also at the request of our
9 Citizen's Advisory Board, and it will be rereleased
10 here shortly.

11 We have several supporting documents
12 here tonight. We have fact sheets. We have the
13 Waste Area Group 3 Proposed Plan. We have comment
14 forms, and our Community Relations Plan. And at
15 this time, I guess I would like to go through the
16 agenda quickly with you.

17 First we're going to hear a presentation
18 on the Remedial Investigation and Feasibility
19 Study, then we will have a question and answer
20 session after that. Since it's a fairly lengthy
21 presentation, I would kind of like to hold off on
22 the detailed questions until after the presentation
23 is completed. If you have a question that comes up
24 that you need to be answered and it is detailed, I
25 can write it on the tablet here at the side of the

Page 5

1 room, or I have some cards back on the back table
2 where you can just jot down your question, and
3 we'll get to it during the Q and A session.

4 Following questions and answers, we will
5 have a public comment session where your comments
6 will be entered into the record officially, and we
7 have a court reporter here tonight who will be
8 recording all portions of this public meeting.

9 Also I want to remind you that we have
10 an evaluation form on the back of our agenda. If
11 you don't mind, after the meeting take a few
12 moments and jot down your impressions of this
13 meeting. This will help us focus on some of our
14 future meetings, maybe some improvements that we
15 need to make.

16 At this time, I guess I would
17 like to introduce the presenters here tonight.
18 Representing the Environmental Protection Agency,
19 Region 10, Seattle, we have Wayne Pierre. And
20 Wayne will give an overview, and he will also talk
21 about the Tank Farm soils at the Waste Area
22 Group 3. We have Talley Jenkins representing the
23 Department of Energy. And Talley will talk about
24 soils under buildings and structures, other surface
25 soils, SFE-20 tank system and the buried gas

Page 6

1 cylinders. We have Scott Reno. Scott is with the
2 State of Idaho Department of Health and Welfare,
3 Division of Environment Quality. He will talk
4 about perched water and the Snake River Plain
5 Aquifer.

6 I should mention that these three
7 agencies work together in preparing this proposed
8 plan. And we're close partners during the entire
9 Remedial Investigation Feasibility Study. So with
10 that, I'll turn it over to Wayne.

11 MR. PIERRE: I would hope that before we
12 start, if people haven't gotten this from the back
13 of the room yet, it would probably make it easier
14 if you could get a copy of these two documents.

15 This is the presentation that we're
16 going to be giving. In the interest of time, we
17 probably won't hit each and every bullet.
18 Obviously, the proposed plan, there are references
19 that we will probably be making to it.

20 I would also like to draw everybody's
21 attention to the fact that we have a postage-paid
22 card in the back where you can put your comments
23 together and send it to us. And we would very much
24 appreciate if you would do that.

25 So for those who aren't familiar with

Page 7

1 the site, it's approximately 890 square miles. As
2 Erik mentioned, we state 10 waste area groups, but
3 we combine Waste Area Group 6, and Waste Area
4 Group 10 is miscellaneous; basically, it's the rest
5 of the facility. Most of the work goes on in this
6 central corridor location. We're interested in
7 this facility here, WAG 3. It's referred to by
8 several names. I'm probably going to concentrate
9 on the word Chem Plant for the sake of ease
10 tonight.

11 So to get started, I guess questions
12 that we thought that you may have, as far as why
13 are we here. As Erik mentioned, we are looking for
14 the public's input, comments on the proposed plan.
15 The alternatives that we think of as the right
16 alternatives, we've identified what we think are
17 the preferred alternatives. Do you agree? Or are
18 there issues that we didn't properly take into
19 consideration.

20 If you look at the cost of this project,
21 \$175 million at present value. It costs an awful
22 lot of money to deal with radioactive waste. The
23 toxicity of RAD is orders of magnitude greater, so
24 it takes much less radionuclides as compared to
25 chemical toxicity.

Page 8

1 Why do we want public input? Again,
2 it's one of the criteria that we use in assessing
3 whether or not to go forward and how to go forward
4 on a facility. And I guess last but not least, why
5 is this proposed plan so complicated? It's over
6 50 pages long. The INTEC, the Chem Plant Facility,
7 is very complicated. It's got about 60 percent of
8 the nations high-level waste -- excuse me, about
9 30 percent of the high-level waste is located in
10 Idaho. Idaho has 60 percent of the nation's
11 transuranic waste, but that's at a different
12 location.

13 Looking at the background for those
14 unfamiliar, the facility began in 1952. Erik
15 already mentioned the various terms that we have:
16 The Idaho Chemical Processing Plant, WAG 3; WAG 3
17 is the Waste Area Group; Idaho Nuclear Technology
18 and Engineering Center, which is the newest name
19 given to the facility. What we're here to talk
20 about today is numerous spills. Over the years
21 that this facility has operated -- and I need to
22 mention that the operation of this facility
23 includes the dissolution of fuel rods. If you want
24 to dissolve a fuel rod, it takes very powerful
25 acid. It takes hydrochloric and nitric acid as an

Page 9

1 example. When you have a lot of lines, which
2 are buried under ground, and you're running
3 hydrochloric and nitric acid, and there have been a
4 number of leaks that have occurred over the years
5 at the facility. And that is a large part of what
6 we're here to talk about.

7 This facility is listed on the EPA's
8 National Priority List. We are fence to fence; as
9 such, we are in engaged in what is typically called
10 the Superfund clean up at the facility.

11 The method that we're using to implement
12 the clean up at the site under Superfund and the
13 state's Hazardous Waste Corrective Action Program
14 is the Federal Facility and Consent Order. It
15 provides an organization for prioritizing and
16 undertaking clean up at Idaho National Engineering
17 and Environmental Laboratory.

18 Also a little bit contrary to what Erik
19 said, if there is any clarifying questions that
20 anyone has, stop me at any time. Back to, as I
21 mentioned, you were going to need the proposed
22 plan. Table 11, which is in the back, on page 48
23 of the proposed plan, provides a brief summary of
24 the groups that we're looking at the Chem Plant, at
25 the WAG 3 facility, and what we hope or what we

Page 10

1 think is the preferred alternative.

2 We assessed 95 potential sites. Most of
3 the sites were found to be acceptable risk.

4 AUDIENCE MEMBER: I just noticed for the
5 heading for the table of each one of these soil
6 groups, and, yet --

7 MR. PIERRE: That's correct, there are
8 not. And there are other typos that I will point
9 out as we go through.

10 But the 40 groups, when you take away
11 the four, we are under the existing state registry
12 programs which were found to have unacceptable
13 risk. And to talk a little about what does that
14 mean, unacceptable risk.

15 Under the National Contingency Plan,
16 it established a procedure for identifying and
17 understanding risk. We try to provide an analysis
18 of what is called the baseline risk. That is
19 baseline risk to human health and the environment
20 for the current scenario and reasonable future
21 scenarios that may occur at the facility. We try
22 to determine the levels of chemicals, including
23 radionuclides. Superfund does address both
24 chemicals and radionuclides that can remain on
25 site. In other words, this refers to the residual

Page 11

1 risk that a site posed.

2 One of the objectives, obviously, if you
3 find a site that poses an unacceptable risk, what
4 can we do to make it an acceptable risk and provide
5 the basis for comparing potential health impacts of
6 these various alternatives. As we look at each of
7 those alternatives, we try to decide what that
8 residual risk would be if the alternative was
9 successfully implemented, and we are also
10 interested in looking at the ability to compare
11 sites on a national basis as far as making
12 decisions between sites, between states.

13 INEEL is government property. One
14 could ask, well, if it's government property, is
15 it secure, why do we need to clean it up?
16 Unfortunately, and I think as a direct response to
17 what happened with the base Realignment and Closure
18 Act, there is a lot of Department of Defense
19 facilities were government property, and there was
20 a belief that they would also remain government
21 property for indefinite periods of time. Some of
22 those are now in the private sector.

23 The fact is that as you looking towards
24 the future, it is a very, very hard to make an
25 assessment on whether government property will

Page 12

1 remain government. There is an act of Congress to
2 make it a park. For Idaho National Engineering and
3 Environmental Laboratory, Congress has not decided
4 to do that at this time.

5 So we need to take a look at what are
6 reasonable future scenarios. A reasonable future
7 scenario, when you are look looking at periods of
8 100 years, is residential. It is quite possible
9 that the facility can -- even if it were to just
10 revert to -- what they reverted to the tribe, the
11 ShoBan Tribe, they could choose to sell the land
12 and have residences on it. So we do look at that
13 as one of the issues.

14 We look at the current industrial
15 scenario also. And for cancer-causing agents --
16 radionuclides clearly fall into that category, we
17 determine that for acceptable risk at INEEL, the
18 risk has to be less than 1 in 10,000. That is
19 1 in 10,000 potential increase in tumors, which may
20 become cancer causing. It is a conservative
21 estimate. It is the highest end of the risk range
22 also. The acceptable risk range for the National
23 Contingency Plan is 1 in 10,000 to 1 million. But
24 for some of the contaminants that we're dealing
25 with, their background represents 1 in 100,000.

Page 13

1 AUDIENCE MEMBER: Do you really consider
2 residential use as being one of the reasonable
3 scenarios?

4 MR. PIERRE: When you look at 100 years
5 out, not as you look at it today. As you know, our
6 country is a little over 200 years old.

7 There were a lot of Department of
8 Defense facilities -- ADAC, for example, up in the
9 Aleutian Chain, there is going to be government
10 property forever if you're talking about selling it
11 to a tribal entity.

12 The tiered approach that exists for
13 evaluating alternatives -- once you've done the
14 risk assessment and if you've decided that there is
15 a nonacceptable risk, the next step is: What can
16 I do about it? In other words, what are the
17 alternatives? In order to figure out the
18 alternatives, first you need to establish
19 objectives: What am I trying to achieve? If I
20 have potential groundwater contamination, I have an
21 objective about trying to do something that is
22 going to restore the aquifer to drinking-water
23 quality.

24 Once I've established what my objectives
25 are, I'm going to identify and screen feasible

Page 14

1 alternative technology. Those technologies, they
2 include do nothing, which is a base for
3 comparison. The treatment technology and
4 containment technology, there may be variations on
5 that. They may dig it up and take it elsewhere as
6 an alternative. Then we would assess,
7 individually, those alternatives against the
8 criteria that we've established, and I will show
9 that on the next slide. Once we've assessed
10 whether or not those alternatives are reasonable
11 for those criteria, we would then evaluate between
12 the alternatives to establish which is the best
13 alternative in our understanding.

14 These are the nine criteria that are
15 established under the National Contingency Plan.
16 The first two are must pass. We must comply with
17 the law and we must protect health and the
18 environment. If the alternative doesn't achieve
19 that, the alternative is not worth considering.

20 Once we have passed this threshold, then
21 we take a look at the technical concerns and try to
22 identify whether or not the alternative will
23 achieve some measure of permanence and will be
24 effective over a long term. The reduction of
25 toxicity, mobility, or volume through treatment is

Page 15

1 statutory requirements our Congress put into the
2 Superfund statute.

3 Short-term effectiveness -- some
4 remedies may be worse than the no action
5 alternative, in terms of if you build some sort of
6 a treatment plant and it, in the short term, emits
7 more toxics than what you actually started with.
8 So that is what we assess on short term.

9 Implementability, both availability of
10 material and supplies and administrative concerns
11 that would apply to that. And, obviously, last and
12 not least, cost. This is not in order of
13 importance. This is in order of what happens. The
14 first thing you do is threshold. The next is
15 identify the balancing. Once the agencies have
16 done this, then what we need to do is to get
17 stakeholder and community acceptance. Community
18 acceptance is one of the things that we're looking
19 at in talking with you and hoping that either what
20 we're proposing makes sense to you or you have
21 alternatives or suggestions that can make it make
22 sense to you.

23 With that, what I would like to do is go
24 to a specific group. I know in reading the
25 proposed plan you will see terms like "group" or

Page 16

1 "soil group" and the all these designations,
2 CCP 95 and everything else under the roof. What I
3 would like to do is keep it into -- the grouping is
4 really just an administrative and management
5 function. It doesn't make sense to be in that
6 order.

7 So for the soils, there are 11 sites
8 that are represented here that are connected with
9 the Tank Farm and connected with releases to the
10 Tank Farm. That is what this Group 1 represents.
11 The Tank Farm consists of -- and there is a picture
12 over here -- and as far as how the Tank Farm was
13 initially constructed, you will also see a picture
14 in the proposed plan.

15 I have a little overhead here. This
16 shows the construction of a couple of the tanks
17 back in the '50s. As you can see, this is gray
18 here. These tanks are buried. They are sitting on
19 the soils and they are about 10 feet below grade.
20 This is what it looks like. For people who have
21 been out there, the stack, which is a good
22 measuring point, is located over there.

23 What do we know? We know that there is
24 a lot of contaminated soil. We know that some of
25 the concentrations detected are really, really

Page 17

1 high. This number, 276 nanocuries per gram of
2 plutonium-239, 240 is a number that would require
3 that soil to go to WIPP. It's transuranic; 100
4 nanocuries is the definer for transuranic.

5 We know that most of the contaminants
6 located in the WAG 3 are located in the Tank Farm
7 soils. Now, that is not saying that the Tank Farm
8 is the only problem, but it's saying that most of
9 the contaminants are there. If you got -- it's
10 kind of like, okay, in one case I have 1 in 100, in
11 another case, I have 1 in 10; neither one of those
12 are acceptable so it doesn't change anything.

13 And we also know that just sitting there
14 and doing nothing, there is a lot of precipitation
15 running into the Tank Farm. These contaminants are
16 being leached and going down towards the Snake
17 River Plain Aquifer and entering the Snake River
18 Plain Aquifer.

19 As would always be the case, we know
20 something, and there is something that we don't
21 know. We don't know the exact method of how the
22 tanks' associated piping will be closed. That is
23 something that will be determined in a multistep
24 process. Two of those steps are one, an
25 Environmental Impact Statement is being developed

Page 18

1 and should be completed by the year 2000. Number
2 two, these tanks are subject to the Hazardous Waste
3 Management Act, and would be required to close out
4 pursuant to that. Those are at least two steps
5 that need to be coordinated in order to know what
6 will be the fate of the tanks. Obviously, I just
7 gave two programs, but these tanks are under the
8 Governor's agreement and that has to be addressed.

9 We also don't know much about plutonium
10 transport. The Tank Farm soils are very
11 complicated because of all the leaching that
12 occurred. And we don't know the oxidation state of
13 the plutonium. We don't know what the attenuation
14 of the plutonium, how it's held up on the soils,
15 and whether or not the soils still have their
16 original pH after all that acid leaks through it.

17 We don't know all the spills that are in
18 the Tank Farm. And this a moving target because as
19 the Tank Farm operates, there will probably be
20 future spills, so we will probably never know all
21 the spills that are in the Tank Farm until we clean
22 up the Tank Farm and it's no longer operating.

23 AUDIENCE MEMBER: Do you expect most of
24 the major questions and that issue to be resolved
25 by the EIS?

Page 19

1 MR. PIERRE: The EIS does not decide the
2 fate of the Tank Farm. The Governor's agreement,
3 the Hazardous Waste Management Act, and other
4 actions, what EIS provides is a basis for
5 evaluating alternatives and any information that
6 can be used by the programs, like the hazardous
7 waste program in the state, as they evaluate the
8 permit for the closure.

9 So, as I mentioned before, in the system
10 that we have, we first need to identify the
11 objectives before we look at what the alternatives
12 are. So the objective for the Tank Farm is to
13 protect the drinking water aquifer, the Snake River
14 Plain Aquifer. And by doing that, by reducing the
15 water infiltration through the contaminated soils.

16 Prevent worker contact with contaminated
17 soils. Now, this exists today, obviously. This
18 Tank Farm is fenced. It's underground. But the
19 commitment that we're making here is to ensure that
20 this is occurring, not that it's just dependant
21 upon operational controls by DOE, but that DOE
22 Environmental Program takes an active interest in
23 assuring that they occur.

24 And we also, as I mentioned, because
25 of the uncertainties, need to collect more

Page 20

1 information. And the Remedial Investigation
2 Feasibility Study for the Tank Farm soils stage 2,
3 one can call it, has been initiated.

4 With those objectives in mind, we come
5 to what the alternatives are. The No Action
6 Alternative is a base for comparison. In other
7 words, we always look at, well, if I did nothing,
8 what does it mean? As I mentioned, you don't have
9 an action, you don't usually get to looking at
10 these alternatives unless there was an unacceptable
11 risk. So it kind of answers its own question, if I
12 did nothing, I have a nonacceptable risk.

13 The second one is Institutional
14 Controls. Now, Alternative 2 is on the sketchy
15 side because it really doesn't go after protecting
16 the drinking water aquifer.

17 And then we have Alternative 3, which
18 reduces water infiltration through the contaminated
19 soils. The attempt there is to reduce water
20 infiltration by as much as 80 percent and thereby
21 slow down the leaching of contaminants from those
22 soils into the aquifer.

23 This is an interim action that we're
24 proposing. The reason that it's an interim is we
25 don't have enough information to say today what

Page 21

1 should be the final remedy. Should we dig all
2 these soils up and send them some place, which may
3 be WIPP, based on their concentration? Do we try
4 some sort of a technology like vitrification? Do
5 we cap? We don't have that information today. We
6 need to have more information on the leaching of
7 plutonium.

8 As I was mentioning earlier,
9 Alternative 3 is our preferred alternative because
10 it best meets the objectives that we stated for
11 this group.

12 With that -- are there any clarifying
13 questions? I would like to introduce Talley. He
14 will talk about contaminated soils.

15 AUDIENCE MEMBER: I have one question, a
16 general background question. Is it intended,
17 eventually, that the entire Chem Plant will be
18 decommissioned?

19 MR. PIERRE: The Chem Plant doesn't have
20 a life past 2035 that I know of.

21 AUDIENCE MEMBER: Okay. Thank you.

22 MR. JENKINS: Any other questions before
23 I start on contaminated soils? Well, I'm Talley
24 Jenkins with the Department of Energy, and I will
25 go through Groups 2, 3, 7, and 6.

Page 22

1 Under Group 2, we have four releases.
2 The first one is in an old French drain or a dry
3 well type facility where we had some basin water
4 that was disposed of from '52 until about 1968.
5 It's located underneath this part of the 603
6 facility. Part of that site was excavated prior to
7 constructing the dry site for storage.

8 We have two sites located underneath the
9 604, 605 complex. Occasionally it's referred to
10 the PEW, or Processed Equipment Waste Facility.
11 There was a -- we found liquid underneath a
12 stainless steel liner, one of the hot cells. We're
13 not sure if it leaked to the environment, but it
14 was out of its containment area. We also -- when
15 they were putting a life safety or fire exit
16 underneath the facility, they dug through some
17 contaminated soil.

18 Then we have the fourth release
19 underneath the 601 complex. This was a line, a
20 steel line that corroded away and released
21 radioactive liquid waste into the environment.
22 That is basically what we know.

23 What we don't know, is we don't know
24 what the future of D&D for these facilities will
25 be. We don't know if the building will act as a

Page 23

1 long-term cap. We believe at this point it's
2 currently acting or functioning as the equivalent
3 of a cap, but that may not be adequate for long
4 term.

5 Based on this, we believe that a
6 deferred action is warranted. Again, the objective
7 is this will allow us to protect the aquifer. It
8 would also prevent exposure or contact with
9 contaminated media.

10 We looked at three objectives underneath
11 this one. Again, the No Action for comparison
12 purposes. Alternative 2 is Containment. That is
13 basically placing an engineered cap -- an
14 engineered multilayered cap over each of these
15 four sites following the D&D of the facility.
16 Alternative 3 is essentially Alternative 2, unless
17 the facility is removed from that location, at
18 which point we would excavate, treat if necessary,
19 and dispose of the soils. Based on this, the
20 agencies believe Alternative 2 is the best choice.

21 AUDIENCE MEMBER: I have some
22 questions. On the building 601, the radioactive
23 liquid waste, do you know what was in it?

24 MR. JENKINS: Yes. It was basically
25 diluted some deconing solutions and things like

Page 24

1 that that eventually -- eventually, at the Chem
2 Plant, everything ends up at the Tank Farm, but
3 this was diluted deconing solutions from various
4 clean-up operations in there.

5 AUDIENCE MEMBER: And you mentioned
6 capping over. Does this include capping under or
7 excavating the soil in any way?

8 MR. JENKINS: No. For the capping or
9 Alternative 2, no, it would be placing a cap over
10 the area with -- let's say, for instance, that the
11 building was entombed in place, i.e., turn it into a
12 giant block of concrete. We would build a cap over
13 that structure.

14 AUDIENCE MEMBER: The assumption being,
15 then, it would be protected from precipitation, et
16 cetera.

17 MR. JENKINS: Yes, we would design a
18 cap situated for that. But Alternative 3 is
19 contingent -- for instance, if we took the building
20 away, then the soils would be available to be
21 excavated, and we would take the soil away.

22 Any other ones on Group 2?

23 Group 3, this site is comprised of
24 20 sites, generally ranging anywhere from spills
25 and leaks of decon solution, storage water,

Page 25

1 leaching from contaminated equipment, some
2 atmospheric releases, other plant waste
3 water disposals, and we have a pile of boxes of
4 contaminated soil.

5 What we know, is these sites present an
6 unacceptable risk. They are contaminated with both
7 metals -- or contaminated with radionuclides. Some
8 sites have metals. The primary risk driver is the
9 radionuclides, but there are a few sites that
10 present an ecological risk due to metals.

11 Contamination at these sites ranges
12 anywhere from a couple of feet for some sites, all
13 the way to the top of the basalt, which is
14 approximately 40 feet. Based on how we've drawn
15 the sites, we believe there is about 82,000 cubic
16 yards that would need to be excavated. However,
17 that is predicated upon an excavation depth of
18 10 feet.

19 But the way we conducted our
20 investigation is, we focused on the hot spots. We
21 generally knew where the release was, so we sampled
22 there. That did not give us a real good handle on
23 the horizontal or vertical extent of the release,
24 which gives us an uncertainty. The volume could
25 increase. In addition, there may be levels of

Page 26

1 contamination below 10 feet that would present
2 enough leachability that they could be an impact on
3 the aquifer and, as such, during the excavation or
4 even the design phase, we would have to look at how
5 much additional soil below the 10 feet we would
6 have to deal with.

7 Based on this, the agencies believe
8 remedial action is warranted. Again, this would
9 allow us to protect the aquifer and prevent
10 exposure to both current and future receptors.

11 We looked at five alternatives here.
12 Again, the No Action for comparison purposes.
13 Alternative 2 essentially restricts it further.
14 There would have to be administrative controls
15 placed such that the areas could not be turned over
16 to the public.

17 Alternative 3, again, would place a
18 multilayer cap over each of the sites. The last
19 two alternatives are remove and dispose. The first
20 one being remove and on-site disposal. The second
21 one being remove, treatment and off-site disposal.

22 In the case of the remove an on-site
23 disposal, this would be to construct an engineered
24 disposal facility similar to what a RCRA
25 Subtitle C facility would be, which would include

Page 27

1 liners, leachate collection and a multilayered cap
2 placed over the top for long-term disposal.

3 Based on this, the agency's preferred
4 Alternative is 4A. Questions?

5 AUDIENCE MEMBER: Could I ask why the
6 off-site disposal option was not preferred?

7 MR. JENKINS: Costly, much more costly.

8 AUDIENCE MEMBER: On what basis were
9 those costs derived?

10 MR. JENKINS: Actual prices that the
11 department has paid in the past for disposal.

12 AUDIENCE MEMBER: Versus?

13 MR. JENKINS: Versus what we estimate it
14 would cost to construct and operate a disposal
15 facility.

16 AUDIENCE MEMBER: What about evaluation
17 of private disposal options?

18 MR. JENKINS: It was private. We used
19 it for representative cost.

20 MR. JENKINS: Basically.

21 AUDIENCE MEMBER: Do the preferred
22 alternatives include future actions such as
23 possible vitrification, waste reduction,
24 technologies, this sort of thing?

25 MR. JENKINS: No, we didn't factor that

Page 28

1 in. Any other questions?

2 AUDIENCE MEMBER: Yes, I'm sorry. I do
3 have another question. Alternative 3, I'm
4 intrigued by this couple of dozen little
5 landfills. What does that mean?

6 MR. JENKINS: That means, basically, we
7 would place a cap over each one of those 20 release
8 sites.

9 AUDIENCE MEMBER: Thanks.

10 MR. JENKINS: Any other questions?
11 Okay.

12 Group 7 is the SFE-20 Tank System. This
13 was a tank that was used or was constructed in
14 1957. It was used until 1976 to collect
15 decontamination solutions and other radioactive
16 liquids generated within the 603 complex.

17 This is a tank located down by the 603
18 area. This being drain level; the top of the vault
19 is below 10 feet. It's about a 640-gallon tank.
20 It has about 400 gallons of liquid and an
21 additional 535 gallon of sludge.

22 What we know is, we have some fairly
23 significant levels of radionuclide contained in
24 both the liquid and the sludge. Also, I should
25 point out that in 1976, we went out and cut and

Page 29

1 capped the lines, basically isolated the system and
2 abandoned it in place.

3 Also, what we know is, if we do nothing
4 at some point the content of the tank will leak and
5 eventually reach the environment, which could
6 impact the aquifer. What we don't have a good
7 handle on is actual concentrations, in that we have
8 one round of sampling from 1984 that they looked at
9 radionuclides and radionuclides only. As such, we
10 would need to look at what the radionuclides would
11 be and the chemical metals, organics, if necessary,
12 also associated with this area.

13 Based on this, the agencies believe
14 remedial action is warranted. This would allow us
15 to prevent contamination of the aquifer. We looked
16 at four alternatives. Again, No Action for
17 comparison purpose. In Situ Stabilization with
18 Containment, or Alternative 2, would essentially
19 fill the facility full of concrete and stabilize
20 the liquid, the sludge, and the tank structure in
21 place. Alternative 3 would remove the liquid and
22 treat it and then stabilize the structure,
23 including the sludge, with concrete or some other
24 grout. Alternative 4 would remove the liquid,
25 treat it, remove the sludge, treat and dispose,

Page 30

1 then remove the structure, including the pipe and
2 the vault and everything and then dispose of that.

3 AUDIENCE MEMBER: Question. Do you have
4 a technology that is able to remove the liquid and
5 the sludge that you feel confident about?

6 MR. JENKINS: Yes. I'll do it in two
7 pieces. In the case of the liquid, prior to the
8 cutting and capping of the lines, the liquid that
9 was actually treated in the past, through the PEW
10 system, in fact. As far as the sludge -- again,
11 this is why I said we don't have a real good handle
12 on the concentration. From the one sample result
13 we have, the sludge may be -- it's right on the
14 line of being TRU. If it was TRU, we would have to
15 treat it and dispose of it at WIPP. In addition,
16 it would be remote handled. Based on this, the
17 agencies' preferred alternative is 4.

18 Any other questions on that one before I
19 jump to the next group?

20 Okay. The last one I'm going to talk
21 about is Group 6, which consists of two sites, site
22 84 and site 94. Site 84 is somewhere between 40
23 and 100 pressurized gas cylinders. Such things as
24 acetylene cylinders, oxygen, and other welding
25 gases. These were disposed of in the early '50s.

Page 31

1 In the winter of '57, '58, they washed out and were
2 reburied. The other one, Site 94, consists of four
3 tanks suspected of containing hydrofluoric acid.
4 We do know from a site investigation around
5 Site 94, the vegetation has been stressed.

6 AUDIENCE MEMBER: Site vegetation has
7 been stressed?

8 MR. JENKINS: Dennis.

9 MR. RAUNIG: Yes. If you look at the
10 cylinders -- and we have this photo up here. It's
11 an example. I'm not sure if you can see it from
12 the far side of the room, but things aren't growing
13 right adjacent to the cylinders, so it's possible
14 that the contents did release in that area.

15 AUDIENCE MEMBER: Are you only gathering
16 that information anecdotally or are you doing some
17 laboratory investigation of that?

18 MR. RAUNIG: Because of the safety
19 hazards associated with this site, we haven't gone
20 in and performed a sampling analysis there. We're,
21 basically, going to do a removal action on it and
22 at the time we would make that assessment. But
23 there is some acute safety hazards associated with
24 that site, so we roped off a few hundred yards in
25 every direction to keep people out.

Page 32

1 AUDIENCE MEMBER: And wildlife?

2 MR. RAUNIG: Wildlife still has access
3 to it, but it's been there for 35 to 40 years. And
4 the contents -- the containers are high integrity
5 containers, so if they have release, it's probably
6 in the soil beneath.

7 AUDIENCE MEMBER: How about thermal
8 change?

9 MR. RAUNIG: That presents a hazard.
10 If, indeed, there is hydrochloric acid in there and
11 the breakdown of the water in the carbon steel, you
12 have hydrogen gas, overpressurization. That is the
13 exact reason why the area was isolated.

14 AUDIENCE MEMBER: Thank you.

15 MR. JENKINS: Based on that, the other
16 thing that we don't know -- and Dennis kind of
17 touched on this -- we don't know how much pressure
18 is left in the cylinders.

19 AUDIENCE MEMBER: Is there any
20 radionuclides associated with these things?

21 MR. JENKINS: The gentleman in the back
22 asked if there were any radionuclides associated.
23 The answer is no.

24 MR. RAUNIG: We did some cursory rad
25 monitoring in the area before we decided what was

Page 33

1 in the tanks, what we thought was in the tanks,
 2 indicating what might be in there. And we didn't
 3 get any detectable radiation with a problem.
 4 MR. JENKINS: Based on this, the action,
 5 we believe a remedial action is warranted. This is
 6 to reduce the safety hazards associated with the
 7 site. We looked at three alternatives for this
 8 one. First one, again, No Action for comparison.
 9 The second one being a removal treatment of the
 10 contents and disposal of the cylinders. The third
 11 one being placing an engineered cap over each of
 12 those two sites.
 13 Based on this, the agencies' preferred
 14 alternative is 2. However -- and I think that
 15 we've kind of touched on it, and that is the safety
 16 hazard dealing with pressurized gas cylinders. Any
 17 questions on this?
 18 Well, at this point I'll turn it over to
 19 Scott Reno to talk about water.
 20 AUDIENCE MEMBER: About how far is 84
 21 away from the Big Lost River? How far away is it?
 22 MR. RAUNIG: About 100 feet.
 23 MR. RENO: Not very far. I think within
 24 100 feet.
 25 MR. JENKINS: It's not very far.

Page 34

1 AUDIENCE MEMBER: Could they be washed
 2 out?
 3 MR. JENKINS: Could they be washed out
 4 again? Yes.
 5 AUDIENCE MEMBER: I do have another
 6 question.
 7 MR. JENKINS: That fine.
 8 AUDIENCE MEMBER: I do have another
 9 question. I'm sorry. These senior moments just
 10 get me.
 11 In several of the groups, 1, 2, 3, and
 12 7, I've heard reference to soils and whatnot being
 13 taken to WIPP as an alternative; is that correct?
 14 MR. PIERRE: Not exactly. What I
 15 mentioned was that the concentrations at certain
 16 parts of the Tank Farm soils were high enough that
 17 if they were excavated they would have to go to
 18 WIPP. 100 nanocuries per gram is their criteria
 19 for soils that would have to be managed in the
 20 Waste Isolation Pilot Plant. But at this point in
 21 time, the preferred alternative for the interim
 22 action in the Tank Farm soils is to reduce the
 23 infiltration by 80 percent. So we're not talking
 24 about excavating the Tank Farm soils at this time.
 25 AUDIENCE MEMBER: At this time. So it

Page 35

1 would be -- if you had to select another
 2 alternative, then, which would become one of the --
 3 MR. PIERRE: If we had an excavation
 4 alternative, and we picked the soil up, and it
 5 averaged over 100 nanocuries per gram on a 90
 6 percent confidence, it would wind up in WIPP.
 7 AUDIENCE MEMBER: And the same, then,
 8 with sludge?
 9 MR. JENKINS: Yes.
 10 AUDIENCE MEMBER: It has that
 11 potential?
 12 MR. JENKINS: Yes.
 13 AUDIENCE MEMBER: So has there been some
 14 forward thought about what would happen in the case
 15 that WIPP does not open?
 16 MR. PIERRE: Right now the Advanced
 17 Mixed Waste Treatment Facility is going forward on
 18 schedule to take the material and process. If
 19 sludge came out of the SFE-20 and was greater than
 20 10 nanocuries per gram, it would probably wind up
 21 going to the Mixed Waste Treatment Facility.
 22 The output of the Advanced Mixed Waste
 23 Treatment Facility would wind up in the storage
 24 modules until WIPP or something like WIPP became
 25 available. So if WIPP doesn't open, there would be

Page 36

1 a lot of containers of WIPP-ready material in
 2 storage until something did open.
 3 AUDIENCE MEMBER: So that sludge is
 4 really a big can of worms. It could be going in
 5 several different directions depending on what it
 6 turns out to be.
 7 MR. PIERRE: Based on the uncertainty
 8 and lack of knowledge that we have, I know
 9 there was one report that the material was above
 10 100 nanocuries, but what we will have to do is take
 11 it out, sample it, and then go wherever it's
 12 required to go at that point. It's not going into
 13 the INEEL CERCLA disposal facility.
 14 AUDIENCE MEMBER: Thank you.
 15 AUDIENCE MEMBER: Just one more. Do you
 16 have a clarification of what the state planning is
 17 for the INEEL CERCLA Disposal Facility as far as
 18 location and any time frames estimated, things of
 19 that nature?
 20 MR. JENKINS: Right now we're still in
 21 conceptual. Depending upon what we eventually take
 22 for the Group 3 soils. We may or may not construct
 23 it. If we construct it, it would be located at the
 24 Chem Plant. The area that we're looking at is the
 25 area around the perc ponds and including the perc

Page 37

1 ponds. There is kind of a conceptual drawing over
2 here. Did I get your whole question?

3 AUDIENCE MEMBER: Yeah, I think you
4 did. Basically, it's still conceptual, but there
5 is no time frames on development at this point?

6 MR. JENKINS: No. Again, depending upon
7 if we were to sign the ROD -- well, depending upon
8 if we picked it, that would establish what the time
9 frames would be.

10 MR. PIERRE: It's statutory for
11 substantial on-site physical remedial action within
12 15 months of a Record of Decision for a signature.

13 AUDIENCE MEMBER: The ROD is generally
14 expected to be approximately --

15 MR. PIERRE: June, July.

16 AUDIENCE MEMBER: '99. The waste and
17 soils and whatever that potentially would go to
18 this location would be below the TRU levels that
19 would be shipped to WIPP or otherwise?

20 MR. PIERRE: Yes.

21 AUDIENCE MEMBER: Does this also comply
22 with those portions of the Governor's Agreement
23 concerning the removal and disposal of waste from
24 the site?

25 MR. PIERRE: There are two parts. One

Page 38

1 has to do with if it's above 10 nanocuries per
2 gram TRU, it's not going to be disposed of on
3 INEEL. That is Item No. 1. Item No. 2, my
4 understanding of the Governor's Agreement is that
5 the Governor's Agreement in part endorses the
6 Federal Facility Agreement and Consent Order and
7 its implementation. This material that we're
8 talking about -- unless you're referring to --
9 well, even the SFE-20 wouldn't classify as
10 high-level waste. And we're not talking today
11 about excavating the Tank Farm soils, which would
12 potentially be a different issue. So the soils
13 that we're talking about primarily, they may be
14 mixed waste, but the contaminants of concern are
15 primarily constituents like cesium and strontium.

16 AUDIENCE MEMBER: WIPP is for TRU
17 waste?

18 MR. PIERRE: Right. WIPP can only
19 accept material that is above 100 nanocuries per
20 gram. That is our confidence level. The reason I
21 say that is that, by measurement, it may be
22 60 nanocuries per gram measurement in order to
23 assure that it's 100 for confidence.

24 If it's above 10 and below 100, it would
25 have to be treated and processed. In other words,

Page 39

1 the only choice that you have would be below 10 or
2 above 100. That is where the BNFL or the Advanced
3 Waste Treatment Facility comes in or
4 Pit 9, which is also in the same situation.

5 AUDIENCE MEMBER: But the cesium and
6 strontium would not be subject to the Governor's
7 Agreement but rather the Federal Facility's
8 Agreement.

9 MR. PIERRE: Right, which is referenced
10 in the Governor's Agreement.

11 MR. JENKINS: Any other questions?

12 MR. RENO: Those are good questions.
13 Thank you.

14 I'm going wrap up the last two groups on
15 this, which is the perched water and the aquifer.
16 And that should complete our informational phase of
17 the meeting. Our real purpose in being here is to
18 see what you think of the plan and to listen to
19 your concerns and comments. So following this
20 quick overview of these last two groups, I'll turn
21 it over to Erik, and he will facilitate the
22 question and answer period.

23 Really, the key to understanding how
24 the contamination moves at the Chem Plant is
25 understanding how the water moves. The water

Page 40

1 solubilizes contaminants that have leached down
2 from the surface and then enables it to move
3 throughout the zone between the surface and the
4 aquifer, and, to a certain extent, into the aquifer
5 itself.

6 To give you a quick overview of what the
7 subsurface consists of, this is the upper 40 to 60
8 feet, primarily sands and gravels. And then there
9 is 60 feet to 110 feet which is primarily fractured
10 basalts. So at 110 feet we encounter our first
11 significant zone of perched water.

12 What is perched water? Perched water
13 can be thought of as water that is migrating down
14 from the surface through very porous media. Then
15 it comes to a zone or a layer, if you will, of much
16 tighter grain material that does not allow it to
17 move as quickly, and the water, if you will, ponds
18 within these pore spaces.

19 The next significant zone of perched
20 water occurs after another 30 feet of fractured
21 basalt. This is 140 feet. And then we have more
22 fractured basalts down to 380 feet below the ground
23 surface to 420 feet. We have a sandy layer
24 sandwiched between some clay zones that we have a
25 significant perched water zone there. And then the

Page 41

1 regional aquifer, the Snake River Plain Aquifer, is
2 460 feet in depth.

3 The thickness of the aquifer is about
4 250 feet. There is a layer in the middle of that
5 aquifer, about 100 feet into it. There is a
6 sedimentary layer of much less permeability.

7 Here you see the former Chem Plant
8 Injection Well. I want to point out from this
9 picture that that well is no longer in service. We
10 will talk about that a little bit more in a
11 moment.

12 AUDIENCE MEMBER: A quick question.
13 Could you characterize the water quality of the
14 aquifer itself in terms of primary drinking water
15 standards?

16 MR. RENO: Yes. I'll cover that in just
17 a moment. That is upcoming. Also we've got quite
18 a bit of characterization data about the water
19 quality in the perched water itself. The
20 contaminants that we're detecting in the perched
21 water include technetium-99, nitrates,
22 neptunium-237, tritium, and strontium-90.

23 And as a comparison -- there are fairly
24 high concentrations of radionuclides in these
25 perched water bodies. That is the more mobile

Page 42

1 nuclides. For instance, the strontium-90, the
2 maximum concentration we're seeing is on the order
3 of 500,000 picocuries per liter. By contrast our
4 drinking water standard is 8 picocuries per liter.

5 We don't expect this to be a source of
6 drinking water in that when the man-made sources of
7 water that make up these perched water bodies, the
8 man-made sources are gone sometime in the future,
9 we don't believe there is enough contribution from
10 the natural sources alone to create a usable water
11 body for drinking water purposes.

12 However, this perched water does
13 recharge the Snake River Plain Aquifer. We do
14 believe that there is an ongoing contribution or
15 loading to the aquifer of some surface contaminants
16 that is being carried down with the perched water.

17 The sources of water are important. The
18 primary source of recharging perched water bodies
19 is the plant's percolation ponds or surface waste
20 water disposal system. These went on line in 1984
21 to replace the injection well when it was taken out
22 of routine service. And they receive on the order
23 of 1 to up to 2 million gallons of waste water per
24 day into these ponds. That is 690 million gallons
25 per year.

Page 43

1 The second largest source of water that
2 contributes to this zone is the Big Lost River
3 itself. But that contribution is highly variable
4 because the river is an intermittent stream as it
5 flows past the ICPP. If we looked at one of these
6 maps here, this jog in the fence right here on the
7 northwest corner of the Chem Plant is actually so
8 the river channel can go past the facility.

9 The river only runs about every third
10 year on average. Recently we have been in a wet
11 pattern. The river ran year-round last year and
12 ran the year before, and the year before that. But
13 we think that the average contribution is somewhere
14 between 100 million and 200 million gallons per
15 year.

16 The contribution from natural snow melt
17 precipitation, in the contaminated areas, the area
18 of concern is on the order of about 4 million
19 gallons per year. The sewage treatment plants
20 contribute between 25 and 30 million gallons per
21 year. And then we have another 2 million gallons a
22 year from lawn irrigation, another 12 million
23 gallons a year from leaking fire water lines. And,
24 lastly, the plant's heating system is the coal
25 fired of the plant that creates steam to heat the

Page 44

1 facility which has some shallow dry wells, but they
2 discharged the steam condensation into them, up to
3 4 million gallons per year that goes there.

4 Now, we know that this water is carrying
5 contaminants to the aquifer. What we don't know
6 for sure is, how much of this water do we need to
7 eliminate from recharging this zone to stop a
8 significant impact to the aquifer from occurring?
9 We think a phased approach to looking at this
10 problem is the most appropriate. That would be to
11 start at our most significant source of recharge,
12 that being the percolation ponds, and try to remove
13 that source of water, finding alternate means of
14 disposing of plant surface waste water.

15 Our objective is to stop the
16 strontium-90 from reaching the aquifer, to allow
17 the aquifer to reach a usable state or return it
18 for beneficial uses within 100 years, and then to
19 minimize the man-made sources to recharge.

20 So the first alternative is the
21 No Action Alternative. The second alternative
22 would be to begin this phased approach at removing
23 these recharge sources. And then the last one, we
24 would look at removing these sources of recharge
25 one by one and letting the water that is in the

Page 45

1 sub-surface drain out, but, at the same time,
2 implementing a more aggressive contaminant removal
3 pump and treat approach.

4 The difference in cost between the two
5 is the difference of between 20 million and \$260
6 million. This \$260 million is for the Alternative
7 3, the pump and treat. Now, why? We didn't feel
8 with the additional expense it gave us a value
9 added. There are a couple reasons. If you got a
10 swimming pool that drains to the deep end, you can
11 stick a pipe down in the bottom of that and pull
12 all the water out of the pool eventually.

13 These interbeds, where these perched
14 bodies are located, are probably undulating similar
15 to the lava flows that you see out in the desert
16 and to get a well in all the little pockets and all
17 the other little interspersed areas, where perching
18 may occur outside of our big significant zones, is
19 going to be very difficult and probably -- I mean,
20 it would be unrealistic to recover all of the
21 water.

22 The second issue is these contaminants
23 have an absorption coefficient associated with
24 them. For instance, in the case of our
25 strontium-90, its sorption coefficient is between

Page 47

1 bounce off these interbeds but it was not really
2 very successful in identifying and further
3 delineating perched water bodies.

4 AUDIENCE MEMBER: The perched water
5 bodies that you are talking about are the ones
6 that -- are these directly beneath the ICPP or are
7 we talking the site-wide perched water?

8 MR. RENO: Thank you for asking for
9 that clarification. These are perched water bodies
10 which are directly beneath the ICPP or the INTEC
11 Facility. And they are capable of carrying
12 contaminants released to the surface soil from this
13 facility to the aquifer.

14 Our modeling indicates that if the
15 percolation ponds alone were taken out of service,
16 that it would be much more difficult for these
17 interbeds to receive enough water to reach a
18 saturation point, so that processed water is the
19 largest source of our problem. The model also
20 indicates that if these percolation ponds were no
21 longer in service and that the production wells
22 that are currently at the Chem Plant were no longer
23 in service, that the aquifer would naturally
24 attenuate to drinking water or to meet drinking
25 water standards 100 years from today. All right.

Page 46

1 12 and 24. That means that 1/12th of the
2 contaminant, strontium-90, is present in the water.
3 And 11/12ths, or up to 23/24ths is absorbed to the
4 soils themselves. So even if you pump all the
5 water out, you still only remove between 5 to 10
6 percent of the total contaminant from the
7 subsurface.

8 Therefore, we do not feel that we wanted
9 that as a preferred alternative and picked
10 Alternative 2, a phased approach to eliminating the
11 recharge sources and letting the perched water
12 drain out and the contaminants to decay out in the
13 vadose zone that has been dried out, if you will.

14 AUDIENCE MEMBER: A question on the
15 perched water and the other identified kind of map
16 of the subsurface geology, if you will. Now, that
17 has come largely as a result of monitoring wells,
18 what we know about that; is that correct?

19 MR. RENO: That's right.

20 AUDIENCE MEMBER: So beyond that we're
21 estimating what is down there based on, hopefully,
22 strategically placed monitoring wells.

23 MR. RENO: That is correct. We
24 attempted a timed domain, electromagnetic survey,
25 we beamed with the beam, radio signals down to

Page 48

1 Clarification? Should I continue on or
2 do you want to go back to this?

3 AUDIENCE MEMBER: I have a couple more
4 questions.

5 MR. RENO: Go ahead, Pam.

6 AUDIENCE MEMBER: I'm looking at this
7 schematic, and I'm asking about the geology. Do
8 you have an estimate of the acreage or the cubic
9 feet or the amount of volume that we're talking
10 about?

11 MR. RENO: Of how much water is there?

12 AUDIENCE MEMBER: Not the water, but the
13 soil and the water and the rocks.

14 MR. RENO: Well, the Chem Plant Facility
15 is 88 acres.

16 MR. JENKINS: The area of the Chem Plant
17 is around 250 acres, fence to fence, and from there
18 down to the top of the aquifer is 460 feet.

19 AUDIENCE MEMBER: So I get a picture of
20 it. The second thing is not a trick question. I'm
21 not intending to put you on the spot; I'm just
22 really curious. In terms of the cost, has anyone
23 performed an economic model that would tell us what
24 the cost would be if we lost the use of the aquifer
25 to agriculture, sports, people drinking water and

Page 49

1 living here, eating food, that sort of thing?
 2 MR. PIERRE: One of the things
 3 is -- when Scott goes into the Snake River Plain
 4 Aquifer, and it may be better if you wouldn't mind
 5 to wait until he does, because one of the issues
 6 is, where is the contamination? What are we trying
 7 to protect? What we are trying to protect is the
 8 area within INEEL and it may be easier to answer
 9 that question at that point.
 10 MR. RENO: Right. I think we'll show
 11 it's probably a moot point, but I understand the
 12 concern. And, obviously, that aquifer is of an
 13 immense importance to the region and to the people,
 14 and protection of the aquifer is a very high
 15 priority.
 16 So let's talk about what the
 17 contamination in the aquifer consists of or arises
 18 from, the disposal practices at the Chem Plant.
 19 From 1952 to 1984 an injection well was utilized to
 20 dispose of the plant service waste. If we look
 21 over on this map here, there is kind of a
 22 conceptual drawing of what that might look like.
 23 It was 598 feet deep. The top of the
 24 aquifer is 460 feet. And over that period of time,
 25 one and a half to 2 million gallons of waste water

Page 50

1 per day went down the well, for a total of 11 and a
 2 half billion gallons of waste water. In 1989 the
 3 well was permanently sealed shut. A contractor was
 4 brought in that dropped detonation cord down the
 5 well, blew up the casing, and then pressure grouted
 6 things from the top of the aquifer to the surface
 7 at 300 pounds per square inch of concrete. So it's
 8 not going to be used again.
 9 However, the contamination that we have
 10 in the aquifer is largely from injection. But, as
 11 I say, we also have some migration from the surface
 12 through the perched water.
 13 AUDIENCE MEMBER: Do we know how much
 14 radioactivity -- how many curies of radioactivity
 15 were actually injected?
 16 MR. RENO: Prior to 1961 the records are
 17 not real good, but we do have an inventory of what
 18 went down the well on a monthly basis from '61 on,
 19 and then the discharges prior to '61 were kind of
 20 back calculated. It was on the order of 23,000
 21 curies of tritium and 7,000 curies of strontium-90
 22 over that period.
 23 There were also some minor amounts of
 24 some other contaminants that went down the well.
 25 We had some mercury that went down the well in not

Page 51

1 a large amount, you know, pounds. And in 1974 a
 2 half a curie of plutonium was disposed of through
 3 the well.
 4 AUDIENCE MEMBER: Any iodine?
 5 MR. RENO: About one curie of iodine.
 6 AUDIENCE MEMBER: What is the date of
 7 the last tritium injection; do you know?
 8 MR. RENO: 1984 was the last routine
 9 use. There were a couple incidents. There were
 10 some upset conditions or something where a small --
 11 a couple thousand gallons or whatnot went to a
 12 drain that fed to the old well between then and
 13 1989. And I assume there would have been some
 14 concentrations of tritium within those. There is
 15 some tritium, but less than drinking water
 16 standards, that is currently discharged to the
 17 percolation ponds themselves.
 18 AUDIENCE MEMBER: What are the
 19 quantities of strontium and cesium again, please?
 20 MR. RENO: Very little cesium went down
 21 the well. I don't have an exact number on the
 22 total curies of cesium-137. But there was some,
 23 but the main contaminant was strontium-90, and it
 24 was on the order of 7,000 curies. It's also
 25 important to note that much of this has decayed

Page 52

1 over this period of time. I will go into that a
 2 little more in a minute.
 3 AUDIENCE MEMBER: What happens with the
 4 water in the percolation pond? Is it treated from
 5 there? I'm unclear.
 6 MR. RENO: Well, the percolation ponds
 7 have effluent limitations. They are subject to
 8 their current Waste Water Land Application Permit.
 9 The total dissolved solvents and total chlorides
 10 that go on nonradioactive are slightly above the
 11 secondary drinking water standards, which are
 12 primarily there for aesthetic qualities for water
 13 rather than a toxicity.
 14 And the percolation ponds, their current
 15 permit is only valid through the fall of the year
 16 2000. And given that we have a new groundwater
 17 quality rule that was promulgated in Idaho in 1987,
 18 were that permit to be reissued, there would
 19 probably need to be some type of pretreatment
 20 that was done to meet that rule. That would be
 21 addressed, the total dissolved solids in the
 22 chloride.
 23 It still looks like you're a little bit
 24 confused. Did I answer your questions?
 25 AUDIENCE MEMBER: I'm unclear on what

Page 53

1 kind of waste water is in there. I mean, how
2 contaminated is the water?

3 MR. RENO: I'm sorry. It's primarily
4 cooling waters that have cooling coils that have
5 gone around the high-level waste tanks. It's an
6 isolated system that goes through heat exchangers
7 and whatnot. And there are various plant processes
8 require cooling, et cetera.

9 MR. RAUNIG: Maybe I can clarify
10 that -- to state that it meets the drinking water
11 standard with the exception of the chloride,
12 otherwise, it does meet MCL water that goes into
13 the perc pond.

14 MR. PIERRE: Was your question, why was
15 it radioactive? In other words, what are they
16 doing there?

17 AUDIENCE MEMBER: No, my question has
18 been answered.

19 MR. RENO: All right. This is the
20 strontium-90 plume. If you've been out at the
21 INEEL, this is the Central Facilities Area, which
22 is about 3 miles south of the ICPP. This outside
23 line here corresponds to the 8 picocuries per liter
24 strontium-90 contour.

25 This slide is the tritium plume. Again,

Page 54

1 about 3 miles south of the Chem Plant is the
2 Central Facilities Area, and this outside line
3 corresponds to the area. If you're looking out of
4 an airplane, this is the area where the water
5 within that line is greater than the drinking water
6 standard of 20,000 picocuries per liter.

7 Now, what is interesting about the
8 strontium-90 and the tritium plumes, since the
9 injection well was taken out of routine service in
10 1984, these two plumes have been moving back -- or
11 this contour line has been moving closer back to
12 the Chem Plant.

13 The mechanism that is allowing that line
14 of that area that exceeds drinking water standards
15 to move back is dissolution, dispersion and
16 radioactive decay. Now, the radioactive decay is
17 happening relatively quickly for the strontium-90
18 and the tritium. The tritium has a 12.3 year half
19 life, and the strontium-90 has a 20.1 million year
20 half life.

21 Now, the third radionuclide contaminant
22 of concern that we have in the aquifer has a little
23 different problem. That is our iodine-129. It has
24 a 15 million year half life, which gives us a
25 long-term persistence problem.

Page 55

1 Fortunately, there was not very much of
2 it that was disposed of in the aquifer. This is
3 the measured concentrations that we have today.
4 This line corresponds to the area that exceeds the
5 1 picocurie per liter drinking water standard. The
6 highest measured concentrations that we've had,
7 were here, and there is another well up here that
8 were between 3 and 4 picocuries per liter.

9 AUDIENCE MEMBER: Were the black dots
10 monitoring wells?

11 MR. RENO: Yes, they are.

12 AUDIENCE MEMBER: I was going to ask you
13 the same question from the question. What has its
14 track record been? Is it moving forward, moving
15 back?

16 MR. RENO: The iodine plume?

17 AUDIENCE MEMBER: Yeah, the iodine
18 plume.

19 MR. JENKINS: It is dispersing. It is
20 moving back but not nearly as fast as the other
21 ones.

22 MR. RENO: And the mechanisms are
23 dissolution and dispersion. It is a fairly mobile
24 contaminant.

25 AUDIENCE MEMBER: I don't have much of a

Page 56

1 feel for what kind of volume of water are in this
2 aquifer. What kind of gallons per minute are in
3 the wells?

4 MR. RENO: That is a good question.
5 Basically, you can pull a lot of water out of
6 this. I have been told that the production wells
7 at the Chem Plant will pull up to 3,000 gallons per
8 minute with only about 2 feet of draw down.

9 AUDIENCE MEMBER: 3,000?

10 MR. RENO: Yeah. So you can pump a lot
11 of water. The volume of water over the whole
12 aquifer, you know, that is, stretching from
13 St. Anthony out towards Hagerman and Bliss, I have
14 been told it's on the same order of the volume of
15 water as Lake Erie. So we're talking about
16 trillions of gallons or millions of acre feet.
17 Okay? And it is the sole source of drinking water
18 to the people in the area. There are four
19 contaminants of concern. The three radionuclides
20 that we talked about and then the mercury.

21 Now, what do we think is going to happen
22 with this iodine? We built a fairly complex fate
23 and transport computer model to estimate the
24 impacts to the future. And that was put
25 together -- input from the state and from EPA and

Page 57

1 from the Department of Energy.

2 The iodine plume, the model indicates
3 that it will come right near the INEEL boundaries.
4 And that this will be over the next 30 years or
5 so. And from there, that that contour line
6 corresponding to one picocurie per liter will,
7 again, start to move back toward the Chem Plant due
8 to dissolution and dispersion.

9 There has been trace quantities of
10 iodine that has been measured out on the front end
11 of this plume, 16 miles from the point of
12 discharge, the injection well, which is eight and a
13 half miles past the INEEL boundary. It has been
14 detected using a very specialized analytical
15 technique, the mass spectroscopy. There are only
16 two labs in the world that can do this. One is at
17 the University of Waterloo in Canada and one is at
18 Purdue University. And they are literally counting
19 atoms per liter. So the concentrations they are
20 seeing off site are well below any risk-based level
21 of concern or drinking water standard. Within the
22 site boundary, the modeling says without taking
23 action that we will probably not be able to expect
24 the aquifer to be available for future beneficial
25 uses within 100 years within the INEEL boundaries.

Page 58

1 Okay. I want to make another point. I
2 failed to mention when I talked about the receding
3 tritium and strontium-90 plumes, we feel that that
4 trend of the moving closer to the facilities has
5 slowed because of the continuing migration or flux
6 of contamination through the perched water and that
7 it's starting to reach somewhat of a state of
8 equilibrium and will not be receding as quickly as
9 long as that perched water is present. Okay.

10 Now, what to do about this? We
11 asked our computer model what is the highest
12 concentration of iodine-129 that we can see in the
13 aquifer today and be confident that we will not
14 have a problem 100 years from now and that this
15 aquifer will be available for other uses.

16 The model says that number is
17 11 picocuries per liter. Now, what I pointed out
18 before, the well that had 3 to 4 picocuries per
19 liter in it. That was over an open interval well.
20 There may be zones or depths within that well that
21 have higher concentrations of iodine that are
22 mixing with relatively cleaner water. So we want
23 to be sure that our modeling assumptions are
24 correct. So we're proposing to put in five wells
25 in the aquifer in the area where we think the hot

Page 59

1 spots are and to monitor those wells at intervals
2 down to the bottom of the aquifer under 15 meters
3 long. If we find a layer or a zone in there that
4 exceeds this action level, the 11 picocuries per
5 liter, that would lead us into a contingent active
6 remediation approach. We would begin treatability
7 studies to look for appropriate treatment
8 technologies and find a way to try to target this
9 hot spot and in this contaminated zone. That is
10 our Alternative 2B.

11 The other alternative that we
12 evaluated was a requisite No Action Alternative.
13 Alternative 2A, which is simply to monitor it and
14 watch it decay away without a contingent remedy and
15 source control and ensuring that this recharge to
16 the aquifer problem is taken care of.

17 Again, Alternative 2B, Institutional
18 Controls with Monitoring and the hot spot active
19 remediation. And the third alternative would be
20 more aggressive, maybe, a more traditional approach
21 to pump and treat, and that would be to pump over
22 the volume of the entire aquifer.

23 The difference in cost -- this is a
24 \$783 million alternative. And our Alternative 2B
25 is 20 million. I want to point out that there is

Page 60

1 an error on page 35 of the proposed plan. The
2 table says 35 million, but the side bar has the
3 correct value in that, present value dollars of
4 20 million. Clear?

5 AUDIENCE MEMBER: Now, all these various
6 alternatives, et cetera, will be continually
7 revisited, though, throughout the life so at some
8 point should data indicate, then you would perhaps
9 move to one of the other alternatives or more
10 aggressive?

11 MR. RENO: Right. Our costing
12 information, we looked at monitoring the aquifer
13 for 100 years. But for all practical years, it
14 will be monitored in perpetuity the best that can
15 be achieved. And our Records of Decisions are also
16 subject to review no less frequently than every
17 five years. We would have to look at the data
18 from that monitoring to ensure that our remedy is
19 effective.

20 AUDIENCE MEMBER: I want to say thank
21 you very much for the presentation on the iodine.

22 MR. JENKINS: I think your question from
23 earlier is, what was the economic impact of the
24 aquifer restoration.

25 MR. PIERRE: Is that your question now?

Page 61

1 AUDIENCE MEMBER: No, that is not my
2 question. Just give me a couple, Scott --
3 MR. RENO: Let me go over a couple
4 things and if it comes back, you let me know.
5 All right. We want to hear what you
6 think. You can provide written comments back here
7 at the table or we'll go through a question and
8 answer session here, and then there will be an
9 opportunity for you to provide any comments for
10 the record that you would like to address.

11 The comment period, as Erik said, is
12 going to end on December 22nd, 1998. We expect to
13 have a Record of Decision sometime next summer
14 and to begin work right away on designing these
15 remedies. Okay.

16 AUDIENCE MEMBER: One quick question.
17 How do the different agencies, EPA and DOE and the
18 Idaho Department -- is this document -- is this
19 going to be a ROD signed by all three agencies and
20 reach consensus?

21 MR. PIERRE: That's correct.

22 AUDIENCE MEMBER: I remembered my
23 question. This is a quickie, I think. In
24 reference to the model that you use for the iodine,
25 did you bring into play any kind of unusual

Page 62

1 situations such as change in the earthquakes and
2 ice ages and so on?

3 MR. RENO: Well, we didn't go do the
4 ice ages. We did do a sensitivity analysis upon
5 the model. I mean, we asked what if the speed that
6 the iodine moves with the water was different than
7 what we think it is. We generally use fairly
8 conservative numbers. I think the monitoring,
9 hopefully, will bear that out. But we also asked
10 the question: What if we had a monitoring well
11 that let water run down the casing from the upper
12 perched water body to the lower perched water body,
13 what would happen then? Those types of things are
14 in the RI/FS report. We can go over them. I have
15 a slide out in the truck if you want to get into it
16 in that much detail.

17 MR. PIERRE: We're also talking about a
18 short restoration time frame in terms of the
19 commitment here. You're looking at ice ages or
20 volcanism, we're committed to restoring the aquifer
21 within 100 years, not wait and see what happens.

22 MR. SIMPSON: Pam, Fritz, and Steve,
23 would you mind if we took a break now and we'll
24 come back and have more questions.

25 AUDIENCE MEMBER: How long?

Page 63

1 MR. SIMPSON: Let's go 10 minutes. Come
2 back at about a quarter till.

3 MR. PIERRE: I was going to finish off
4 with the Federal Facility Agreement and Consent
5 Order that we have, almost all of the environmental
6 recollection work being done pursuant to either
7 interim actions or final actions under Records
8 of Decisions, so the public process, the
9 administrative record, the agency commitments are
10 all there. As a matter of fact, the removal
11 actions that DOE have been doing have been minor in
12 comparison to other DOE facilities.

13 MR. SIMPSON: Okay. Let's come back
14 about a quarter till.

15 (Recess.)

16 MR. SIMPSON: We're going to go ahead
17 and start the question and answer where I guess you
18 can fire more detailed questions at the panel up
19 here.

20 I will mention that we will stay as long
21 as you guys want to discuss this.

22 MR. PIERRE: Pam, do you want your
23 question as far as economics now?

24 AUDIENCE MEMBER: No, actually I would
25 like to pose that question even on this model.

Page 64

1 What is the cultural aspects of the EIS on there
2 and not try to handle it tonight.

3 MR. PIERRE: One of the things that --
4 what we're committed to do, as I mentioned earlier,
5 the threshold criteria, that is protection of human
6 health and the environment and compliance with
7 the law, we must comply with the substantive
8 requirements of applicable or relative and
9 appropriate requirements, therefore, we must
10 achieve aquifer restoration within a reasonable
11 time frame. We have with public input used a
12 number of 100 years for what is considered a
13 reasonable time frame. So there isn't a cost
14 benefit analysis to us, it's we have to achieve
15 it. As far as loss of ecology and potential
16 damages, as you know, that is another subject with
17 the trustees and not in what we're doing.

18 AUDIENCE MEMBER: Could you rank each
19 one of these waste area groups in terms of how
20 critical it is? Just more or less which ones are
21 the most important.

22 MR. JENKINS: I would say the aquifer is
23 No. 1. The perched water, it contributes to the
24 aquifer, so put that No. 2. And then the Tank
25 Farm, No. 3, and probably surface soils beyond

Page 65

1 that.

2 AUDIENCE MEMBER: Will that be
3 considered in allocation of funds and the time
4 and all that?

5 MR. JENKINS: Yes.

6 MR. PIERRE: Well, the federal agencies
7 should not -- it's called Anti-deficiency Act, they
8 should not be signed up and committing themselves
9 to funds that they do not have. At this time we
10 expect to have sufficient funds to
11 implement this Record of Decision.

12 AUDIENCE MEMBER: Where is this funding
13 coming from?

14 MR. PIERRE: Congress.

15 AUDIENCE MEMBER: What if Congress
16 doesn't allocate these funds?

17 MR. PIERRE: Congress has the choice to
18 reduce the funding. If they do, then we would
19 prioritize, as the gentleman indicated.

20 AUDIENCE MEMBER: What kind of lobbying
21 efforts are you looking at?

22 MR. PIERRE: I had worked for the
23 federal government. I do not lobby. No lobbying
24 efforts to date.

25 AUDIENCE MEMBER: None from the

Page 66

1 department whatsoever, there is no lobbying?

2 MR. PIERRE: Executive branch agency
3 cannot lobby Congress. The state has influence
4 over Congress, obviously. Now, Governor-elect
5 Kempthorne has influence.

6 At this point in time, we do budgeting
7 on a two-year cycle. So what we're looking at is
8 we already know what the budget for the year 2000
9 is going to look like, based on discussions with
10 the Office of Management and Budget, et cetera, at
11 this point in time. In the last several years the
12 Department of Energy has been on what is relatively
13 flat funding so they know there is a certain amount
14 of money that they are expecting to receive for
15 Environmental Restoration. We have been
16 prioritizing that money and trying to apply it to
17 where it can do the best good. That is something
18 that is under consideration.

19 The budget plans, Talley, you may want
20 to talk that. It does take into consideration the
21 ability to implement.

22 MR. JENKINS: What we -- well, I guess
23 to describe our budget approach as Wayne said, it's
24 on two-year cycles, in that starting in the
25 January, February time frame we'll actually be

Page 67

1 putting together what the request will be for
2 2001. In the meanwhile what we have is a baseline
3 in place, which basically is a projection of
4 current year work plus out-year work. And from
5 that baseline we'll roll up what the request to
6 Congress will be, in that we actually try to
7 schedule the work ahead of time.

8 Did I answer your question?

9 AUDIENCE MEMBER: In part. Typically,
10 does Congress fund what you're requesting, and what
11 percentage do they fund?

12 MR. PIERRE: In recent years they have
13 been funding, as I said, DOE pretty much on a flat
14 basis. If you were to go back about four years,
15 that is when DOE was taking like 30 percent hits of
16 what they were asking versus what they would get,
17 so the requests are now much more realistic within
18 the expectations of -- Office of Management and
19 Budget pretty much identifies what your expectation
20 should be and your requests are in that area.

21 Keystone, the Federal Environmental
22 Restoration Advisory Committee -- do I got it,
23 Dean?

24 MR. NYGARD: Dialogue committee.

25 MR. PIERRE: Dialogue committee had

Page 68

1 several meetings and put out a number of documents,
2 and one of the recommendations would be if Congress
3 does choose to underfund a project at the facility
4 like the Department of Energy, Idaho, we would then
5 look at the monies that are available and try to
6 apply them across the board. We have been doing
7 that over the last several years because there has
8 been hits of 10 percent at least in the last couple
9 of years. And it's called value engineering. We
10 take a look at the estimated cost that we have for
11 this project, 175, and see where we can meet the
12 same objectives but do it in a more simple or more
13 economic way. And we have been living with that
14 for the last decade.

15 AUDIENCE MEMBER: There has been
16 discussion in the Governor's Agreement and the
17 federal facility compliance issue. Scott, could
18 you summarize what the state's regulatory role is
19 at INEEL, both in terms of enforcing the existing
20 agreements and ongoing regulations of facilities?

21 MR. RENO: That is a good question. The
22 Chem Plant, it's regulated under three major
23 agreements with the state. The spent fuel
24 activities are governed by the settlement
25 agreement. The RCRA activities are administered

Page 69

1 through the FFCA, the Federal Facilities Compliance
2 Agreement and the Site Treatment Plan and then the
3 clean-up activities where releases that have
4 actually occurred are performed under the Federal
5 Facilities Agreement and Consent Order with
6 U.S. EPA, DOE and the state as the signatories of
7 that document.

8 There are a number of processing
9 facilities that are under Resource Conservation
10 Recovery Act interim status, permit application.
11 And we have two Waste Water Land Application
12 permits there, one for the sewage treatment plant
13 with the percolation ponds, and there are seven air
14 permits, permits to construct the facility.

15 AUDIENCE MEMBER: Would the state have a
16 role in the proposed conceptual new disposal
17 facility and what would that role be if so?

18 MR. RENO: Well, the facility that is
19 being proposed is to address soils subject to the
20 Federal Facilities Agreement, that is,
21 environmental restoration only, INEEL only, that
22 is, no out-of-state, no off-site soil and debris.
23 If there was a proposal to manage some other types
24 of regulated waste out there, then that would need
25 to be done pursuant to some other application, the

Page 70

1 review process that it will not be addressed for
2 this Record of Decision and for this facility.

3 MR. PIERRE: One of the things that we
4 do at the federal facility and consent order that
5 is not common at any of the other DOE facilities
6 now, it is a three-way team approach, so it's not
7 here is the stakeholders and EPA's goal and DOE
8 does the work. It's a three-way process. The
9 remedial design, the remedial action work plan, the
10 oversight of the work is done by all three
11 agencies. And that's the team approach that we've
12 developed since '91, and has been implemented since
13 '91.

14 AUDIENCE MEMBER: Have the contracts for
15 clean up been prepared?

16 MR. PIERRE: No. We are in a proposed
17 plan. We think these are good alternatives. We
18 need your input.

19 AUDIENCE MEMBER: So you guys haven't
20 thought about who is going to be contracted to do
21 this?

22 MR. JENKINS: As far as -- we don't have
23 any contracts or RFPs or anything being written at
24 this point. We would go through the process of the
25 proposed plan and public comment as we are now,

Page 71

1 followed by writing a Record of Decision. At that
2 point it would be Lockheed or whoever the next
3 contractor would be, would be the actual one
4 letting out the contracts or preparing the RFPs.
5 MR. PIERRE: As Talley was just leading
6 into, the Department of Energy is in the process of
7 developing requests for proposal for a new
8 management and operations contractor for the entire
9 facility. That will be on the Web page, and the
10 address is too long for me to remember.

11 Erik, if you can maybe tell people, I'll
12 give it to you later but I don't remember it this
13 second. It starts with an EPA dot com.

14 The point is that January 20th is the --
15 December 5th the draft RFP should be available on
16 the Internet and they are looking at January 20th
17 of putting the requests for proposal out. That
18 would establish the overall contractor whether that
19 contractor is selected to subcontract or try to do
20 the work in house would depend on the capability of
21 the contractor.

22 MR. JENKINS: Did you want to add
23 something, Woody?

24 AUDIENCE MEMBER: No.

25 MR. JENKINS: Do you know the address?

Page 72

1 AUDIENCE MEMBER: I was looking to see
2 if I had it. I don't.

3 MR. JAMES: Wayne, it was also depend on
4 the Davis-Bacon Act.

5 AUDIENCE MEMBER: So that Internet site
6 will have the contracts available for public review
7 at some point?

8 MR. PIERRE: No. That Internet site
9 will have the requests for proposals that will
10 be going out soliciting from various contractors
11 if they want to bid on being the contractor.
12 DOE ID is supposed to select the contractor in
13 September -- or by September, I should say. You
14 have to have it in place by September of '99. This
15 record of decision, we would expect to be around
16 June or July of the '99. So after you sign a
17 Record of Decision, the process would then go that
18 we would develop the scope of work. From the scope
19 of work would become a remedial design, from
20 remedial design would go to a conceptual or 10
21 percent design or 30 percent design to 90 percent
22 design and from that you would have a remedial
23 action work plan. I just described about two years
24 of work. So the contract would be well in place
25 before we had to build something.

Page 73

1 MR. JENKINS: Did we answer your
2 question?

3 AUDIENCE MEMBER: So then, once all that
4 work has gone through, are the contracts available
5 for public viewing?

6 MR. PIERRE: Parts of them are. It
7 depends on the confidentiality.

8 MR. RENO: Let me introduce these other
9 members. We have Bob Nitschke, who is with
10 Lockheed Martin Idaho Technologies Company. He's
11 the risk assessment guru for them. And Susan Evans
12 also with Lockheed is a hydrogeologist, and Bob
13 James is the project manager for this effort with
14 Lockheed.

15 MR. JAMES: I'm not the a contracting
16 expert so I will have to answer it in layman's
17 terms, but subject to the FARs, the Federal
18 Acquisition Regulations, and I believe there is a
19 confidentiality condition until such time as the
20 contract is let. I think all proposals remain
21 confidential except the successful bidder, and
22 that, I believe, becomes part of the public
23 record. Is that your understanding, Wayne?

24 MR. PIERRE: Yes. So I guess the short
25 answer would be sometime in the '99 to 2000

Page 74

1 transition time that should be of public record.

2 AUDIENCE MEMBER: My first question is
3 going back to Group 1 and that's an interim plan --

4 MR. PIERRE: Interim action.

5 AUDIENCE MEMBER: What are the triggers
6 for to you decide to move for another alternative?
7 What specifically would be the triggers?

8 MR. RENO: Just a clarification, Pam.
9 This would be the triggers to change the short term
10 or the interim remedy or the final remedy?

11 AUDIENCE MEMBER: The short-term
12 interim.

13 MR. PIERRE: One would be, do you see
14 another alternative than the three that we've
15 identified that would meet the objectives. We
16 stated what we thought the risk was. We also
17 stated what we know we don't know, and at this
18 point in time we think that we should be doing
19 something to minimize the percolation of
20 contaminants to the Snake River Plain Aquifer.
21 What we are proposing is to take actions to achieve
22 a goal of about
23 80 percent.

24 Those actions are not defined in the
25 proposed plan, just the objective of doing them.

Page 75

1 But it would include things like surface sealing
2 and some sort of embankments or berming to prevent
3 flood water from running on. We, at this time,
4 just don't see a fourth alternative. But if you
5 do, and if it meets the objective better than the
6 third alternative, then that would be the way that
7 we go. So it's not exactly a decision table, but
8 if we have the nine criteria and what best fits
9 those criteria is the direction that we go in.

10 AUDIENCE MEMBER: Another question is I
11 would like to have some discussion about the
12 percolation pond. If I'm grasping the information
13 that's in these reports, they have a huge bearing
14 on a number of these. Now, they are scheduled to
15 continue with the permit until -- I think it's a
16 Scott question.

17 MR. RENO: I believe it's September of
18 the year 2000 is when the existing permit is up for
19 review. In the interim, no decision has been made
20 on what to do with these ponds. We think that we
21 need to do something. Lockheed Martin, as we
22 speak, I know for their permit review -- their
23 current permit review has a study going on to look
24 at alternatives to replace these ponds or find some
25 other methods of dealing with their waste water

Page 76

1 that won't recharge perched water bodies. We will
2 set forth a schedule in our post-ROD documents on
3 when these activities would occur, and that may not
4 necessarily be governed by their current permit
5 time frames.

6 AUDIENCE MEMBER: So DOE owns these,
7 runs these? Who is the -- where is the DOE guy?

8 MR. JENKINS: Here.

9 AUDIENCE MEMBER: Okay. So do you have
10 a work plan for decommissioning these or moving
11 them somewhere else?

12 MR. JENKINS: As Scott kind of touched
13 on, the current permit would expire in September of
14 2000. If, for instance, let's say we were to
15 continue to reuse these, we would have to reapply
16 for a permit, which we would go through the state
17 to get the permit. And Scott kind of touched on
18 we're looking at other options at this point.
19 Those could range anywhere from new perc ponds to
20 complete recycle of the water or grouping or pieces
21 of each within there.

22 We're planning to have some kind of
23 analysis pulled together to support the upcoming --
24 as I kind of touched on earlier, we need to make
25 our request for funding in the January or February

Page 77

1 time frame or start pulling that together. So what
2 we're really doing is trying to pull together what
3 to do with this water over the next couple months
4 together. At this point we don't know what we will
5 do.

6 However, if we don't use the perc ponds,
7 which I think the three of us support that we need
8 to turn them off, if they're turned off -- and for
9 Group 3, the decision was made to construct the
10 repositories. Those ponds would be part of the
11 repository area in that we would construct cells
12 within there.

13 MR. PIERRE: The key is that we feel
14 that it is necessary to stop the recharge to the
15 perched aquifer. Those percolation ponds represent
16 a large fraction of that recharge and they will
17 not -- one way or another, they won't be operating
18 where they are. Either there will be new perc
19 ponds or there will be different discharge or there
20 will be better economies for water usage. But the
21 perc ponds will not continue operating if the
22 Record of Decision is signed.

23 AUDIENCE MEMBER: Are the perc ponds now
24 presently operating within parameters of the
25 permit?

Page 78

1 MR. RENO: Yes, to the best of our
2 knowledge. There is monitoring data that is
3 available which indicates that they are meeting
4 the terms.

5 AUDIENCE MEMBER: Are you monitoring
6 those or is DOE the monitoring them?

7 MR. RENO: I believe it's Lockheed
8 Martin does the monitoring for the Department of
9 Energy. And they do submit reports to the state.

10 Bob, do you want to elaborate on that
11 any farther?

12 MR. JAMES: Are you talking about the
13 kinds of samples?

14 MR. PIERRE: Do you know the frequency
15 of the analysis?

16 MR. JAMES: I don't know the frequency
17 of the analysis.

18 MR. PIERRE: None of us are -- this is
19 one of those situations where you have an operator
20 facility, and we have a necessary remedial action,
21 and so we're faced with how do we minimize the blow
22 to the operating facility but still achieve the
23 interim action.

24 We had a similar situation with the Warm
25 Waste Pond years ago where we needed to take that

Page 79

1 out of service and a new pond was constructed. So
2 it's similar. And it's under a compliance program,
3 and this group, really -- if they are not complying
4 with the permit conditions, they should be
5 penalized. That is the simple attitude of the
6 people here. None of us have checked on that.
7 AUDIENCE MEMBER: My last question about
8 the perc ponds is, when the repermitting process or
9 the new permitting process occurs, is there an
10 opportunity for public participation?

11 MR. PIERRE: There are two ways to deal
12 with the water if they are continuing to produce
13 water discharge. One is the discharge under
14 National Pollution Discharge Elimination System,
15 the other one to a land app. For a National
16 Pollution Discharge Elimination System, the answer
17 is, yes, there is clearly a public input process.
18 If anyone in the audience knows, I just don't know
19 the land app situation.

20 AUDIENCE MEMBER: I think there is a
21 public involvement in land application process. We
22 have not had any in the past, but I think there is
23 an open process also.

24 AUDIENCE MEMBER: Thank you very much.

25 AUDIENCE MEMBER: Along the lines of the

Page 80

1 permit, didn't either one of you say earlier if
2 they needed to be reinstated that they wouldn't
3 meet qualifications? Am I wrong there?

4 MR. RENO: The existing permit was
5 issued in, I believe, September of 1995. At that
6 time it was operating under the Idaho Water Quality
7 Standards and Waste Water Treatment Requirements.
8 And in April of 1997, a new Ground Quality Water
9 rule was promulgated in Idaho, which had a little
10 more stringent requirements on impacts to aquifers
11 and that is a factor into the permit.

12 My understanding -- I don't make the
13 decision, I'm not the permit writer, but my
14 understanding, the existing effluent to that pond
15 probably cannot meet the requirements of this new
16 rule and will probably require some form of
17 treatment, so it's a good question; you're right.

18 MS. EVANS: Up until a few weeks ago I
19 was Bob and Bob was me, so we changed positions.
20 We've been evaluating -- we've got a group of
21 engineers evaluating treatment options to do those
22 upgrades so we can meet permit conditions when a
23 new permit is needed. It's not like we don't know
24 this condition exists and we're not acknowledging
25 it. So we do have a team of engineers evaluating

Page 81

1 treatment upgrade to the plant treatment systems.
2 The two constituents where the regulations changed
3 are total dissolved solids and chlorine concentrations
4 and we're looking at knocking those concentrations
5 down to be within the new regulations when a new
6 permit is needed.

7 But, again, this whole panel isn't the
8 permit people. We do have people looking at that
9 and the Chem Plant acknowledges that is a problem.

10 AUDIENCE MEMBER: I guess what I was
11 wondering then is, is that really feasible if it
12 hadn't been done before, is it feasible now to make
13 it so that it meets permit standards?

14 MR. PIERRE: The answer is, it is
15 feasible, and the Department of Energy would
16 provide sufficient resources in order to achieve
17 that.

18 Again, it has to do a lot with the
19 permit program, which is outside of our sphere, and
20 they would do the evaluations. I know that if
21 there was something like an NPDES with an
22 intermittent stream, you would have to meet water
23 quality at the point of discharge. There would be
24 no dilution. And the land app folks would have a
25 similar kind of attitude, and, that is, what is the

Page 82

1 impact to the groundwater? What is the impact --
2 especially if you're at 1 and one-half million
3 gallons per day, it's kind of hard to say that
4 there is some sort attenuation. I mean, the Warm
5 Waste Pond at the Test Reactor Area was a similar
6 example where cesium was highly attenuated by the
7 soil, but when you're into the millions of gallons
8 per day, you can move most anything.

9 AUDIENCE MEMBER: In regards to your
10 model of the aquifer, I was just wondering if
11 considerations about global warming have been taken
12 into that? I know that we can't foresee what will
13 be happening with that.

14 MR. RENO: We don't foresee there being
15 any impacts to the aquifer related to global
16 warming effects. Did I misunderstand the
17 question?

18 AUDIENCE MEMBER: No. Dealing with the
19 changes in the water cycle?

20 MR. PIERRE: There are two issues. One
21 is, have we looked at it in our model of the Snake
22 River Plain Aquifer? And I think what Scott was
23 saying was no. Would we look at it as a potential
24 and safety factor in our modeling of the INEEL
25 CERCLA Disposal Facility -- I'm trying to avoid the

Page 83

1 acronyms, but it's an acronym within an acronym so
2 it's hard to do that.

3 But with regard to the ICDF, we talk.
4 And one of the things that we're able to do now is
5 talk about here are the basic concepts. When you
6 go through the 10 and 30 percent design, that's
7 when you actually put meat on the bone and you
8 start identifying safety factors, so in building a
9 land fill -- if we're trying to buy a land fill
10 that is going to last a thousand years, do you need
11 to do more than just take what was the last five
12 years of meteorological data and project, the
13 answer is yes.

14 As far as the aquifer itself, this
15 aquifer is 460 feet below the surface, and the
16 water that is in the aquifer is losing because
17 there is an awful lot of water being pumped at the
18 Idaho National Engineering Laboratory. As far as
19 if you're changing the cycle of evapo transpiration,
20 that hasn't been looked at as far as the recharge
21 to the aquifer, so as far as I know to date, we
22 have not been looking at, this aquifer as
23 tremendously losing its water elevation.

24 And I would guess on INEEL -- since
25 INEEL has bumped activity as far as water usage, it

Page 84

1 has been declining over the years. I'm not sure
2 how important that is to this as far as global
3 warming had enough impact as far as the potential
4 pumping of water than the loss from evaporation.

5 MR. JAMES: With regard to restoration
6 of the aquifer, none of the technologies that are
7 envisioned would emit any sort of greenhouse
8 gases. The fuel to provide the energy for
9 treatment would be from electric sources, so the
10 only emission, the carbon dioxide and other
11 emissions would be whatever fraction of that
12 electrical energy is generated from the Fossil Fuel
13 Plant, but there has been no studies to determine
14 was that is to date.

15 MR. JENKINS: Are we even coming closer
16 to answering your question?

17 MS. EVANS: Can you focus your question
18 a little bit.

19 AUDIENCE MEMBER: That's okay. You've
20 answered some other questions in the process.

21 AUDIENCE MEMBER: What about the
22 people? Has the Department of Energy even thought
23 about, you know, since 1952 that you have been
24 doing this, pumping this stuff down into the
25 aquifer without thinking about anything, then you

Page 85

1 stopped in the late '80s? What about the folks
2 that are down the river? I mean, as far as -- and
3 the other thing I have to say, every time I come to
4 one of these, and I do appreciate them, but if you
5 think of this common person, how are you serving
6 them? You're here. There is a handful of us. How
7 is it that this information, once again I say this,
8 can be said and the stated and given in a way so
9 that these people who are affected, the Idahoans
10 that are affected have some more -- I mean, it's
11 like a courtesy, more awareness without
12 sequestering it to all this technology. I mean,
13 I'm not an engineer. I'm a psychotherapist, and I
14 care about this stuff. I'm wondering about all of
15 my -- really -- my brothers and sisters out there
16 who are suffering some of the consequences, or
17 maybe didn't they just give a shit.

18 MR. RENO: Of course, Erik is involved
19 in the outreach activity that the DOE does. We
20 send out copies of the proposed plan, all the
21 interested parties come to these meetings and want
22 to read these documents. We met with the members
23 of the ShoBan Tribe on Monday, then public meeting
24 in Idaho Falls on Monday. We met with the
25 Citizens' Advisory Board, we went over this with

Page 86

1 them Tuesday morning, and then on to Twin Falls
2 with people in the Magic Valley. We are here
3 tonight. We will be in Moscow on Thursday. We want
4 to know what people say.

5 I realize this is overwhelming for
6 people. It's overwhelming for us. If you look
7 over on that table, that is our technical report on
8 the RI/FS. A lot of data and factoids are not
9 necessarily in this report because we made a
10 conscious decision when we put this proposed plan
11 out that we did not want to send a 250 page
12 manifesto to everybody's mailbox. We wanted to
13 keep it to 50 pages and have the common man try to
14 go through it.

15 I hope -- we went through a focus group,
16 members of the Snake River Alliance were in that,
17 to try to ask them is this understandable by
18 people. And, generally, I think the answer was,
19 "Boy, this thing is a monster. It's so complex.
20 It's mind boggling." But they thought that we had
21 broken it down to terms that were generally
22 understandable but yet did not leave out some of
23 the meat. It's a trade off and a balance and,
24 certainly, I don't think that we will make
25 everybody happy from that standpoint, but we try to

Page 87

1 serve the most people.

2 MR. PIERRE: Is that answer enough for
3 your question?

4 AUDIENCE MEMBER: Go ahead. Give me
5 whatever you can here.

6 MR. NITSCHKE: I just want to make one
7 comment about endangering all our brothers and
8 sisters out there, and these past practices. I
9 mean, I think no one of us would support that we
10 would do everything identically to what we did in
11 those days, but they were common industrial
12 practices and so forth. And for all these
13 contaminants that you hear about, there is no risk
14 unless there are people exposed to them. And these
15 contaminants, for the most part, have been retained
16 in a very small area, that there is no public
17 access. Worker exposures are monitored and
18 controlled. So we really haven't endangered people
19 unnecessarily. What this team is trying to do is
20 provide the assurance that that doesn't happen. So
21 we're taking steps today with greater knowledge
22 than we had then to provide that assurance to you.
23 MR. PIERRE: First of all, again, past
24 practices: Should people have known better? It's
25 a wonderful question to answer with hindsight.

Page 88

1 And, obviously, Hanford used cribs, had a little
2 bit of dissolution. Idaho put it right in the
3 sole-source aquifer.

4 As Bob was saying, though, what we're
5 trying to protect is this resource for future
6 generations. For places like Test Area North
7 where there was an exceedance of MCLs,
8 trichloroethylene we put a sparging unit on the
9 water tank to make sure that it did not exceed safe
10 drinking water levels.

11 The CFA is monitored and so are other
12 production wells. So workers are being protected
13 at the same level as your drinking water supplies
14 that they cannot exceed the safe drinking water
15 rec numbers. The radionuclides, that is 4
16 millirems per year. That is a low number. I know,
17 I won't forget. Are we in the ballpark?

18 AUDIENCE MEMBER: Have you thought about
19 making an apology even though you're saying they
20 are not endangering anybody? Have you thought
21 about being compassionate about what could happen?

22 MR. PIERRE: If we lose our
23 institutional knowledge, if we don't put things in
24 place that will ensure that future generations are
25 protected, then we will have the same experiences

Page 89

1 that happened elsewhere where people build shopping
2 malls and all of a sudden there is orange ooze
3 coming through the parking lots.

4
5 **FORMAL PUBLIC COMMENT**

6
7 **AUDIENCE MEMBER:** I actually have to
8 go. I was hoping to go make a comment on the
9 public record. I was wondering if that would be
10 possible.

11 **MR. PIERRE:** If people would like, what
12 we could do is go to the formal comments and then
13 continue with Q and A.

14 **AUDIENCE MEMBER:** I don't mean to
15 inconvenience anybody, but I will have to walk out.

16 **AUDIENCE MEMBER:** I understand. We want
17 you to stay.

18 **AUDIENCE MEMBER:** I just wanted to make
19 a brief comment for the record. My name is Steve
20 Ramono, and I work for American Ecology Corporation
21 which is based here in Boise, Idaho.

22 Through our subsidiaries, we are
23 actually the oldest commercial company dealing with
24 radioactive waste in the country. We have been
25 operating since the early 1960s when the first

Page 90

1 disposal site by the company was developed,
2 actually in the state of Nevada.

3 There is a variety of comments that we
4 would like to put on the record. Firstly, to
5 commend you folks for making the effort of going
6 around the state to meet with people and talk with
7 them and hear from them. That is very important.
8 We certainly encourage you to keep doing that.

9 Secondly, in a general sense, this is
10 perhaps the overriding comment, we believe that
11 your plan needs to take a fundamentally different
12 view on how you're protecting the Snake River Plain
13 Aquifer. Particularly, the policy towards
14 protecting the aquifer should be the overriding
15 alternative looked at and that other alternatives
16 should flow out of that.

17 In a real sense, that leads to several
18 different recommendations on our part. Firstly, we
19 would recommend that you reject any alternative
20 which would involve the disposal of clean-up
21 materials on the site over the sole source
22 aquifer. We're a commercial company to propose
23 developing a disposal site on the INEEL. And that
24 type of hydrogeologic environment, it would be
25 impossible to meet the established federal

Page 91

1 requirements under the NRC 10 CFR, part 61,
2 regulations governing commercial disposal of
3 low-level radioactive waste.

4 For that reason, we believe the same
5 level of restriction, the same level of stringent
6 protection of the environment should also apply to
7 the Department of Energy in the management of the
8 waste which it has. Perhaps, in general terms,
9 what we would be suggesting is that there is a lot
10 hard work that is going to go into cleaning up the
11 mistakes of yesterday. And these mistakes should
12 not be perpetuated until tomorrow by building a
13 future disposal facility to accept these wastes.

14 Whether these wastes are disposed of at
15 the DOE site, whether they are disposed of at the
16 private disposal site, both of those options we
17 believe should be looked at and whatever option
18 that is selected, that disposal site should not be
19 over the Snake River aquifer.

20 We should also note -- and it's
21 certainly not your fault that there is a
22 preoccupation in the approaches to many CERCLA
23 cleanups to look at a health-based standard only.
24 In the case of Idaho and in the case of the Snake
25 River Plain Aquifer, not only the economic value,

Page 92

1 but the related perceptual value can be very real.

2 When one looks at economics of the
3 impact of low-level radioactive waste leaching and
4 impacting natural resources, the perception the
5 public has can be just as real in the effect it
6 would have on, for example, agricultural prices.
7 And all the scientists who might say, well, we met
8 the health standard, we have not exceeded
9 regulatory limit, the permit has been satisfied.
10 That may very well account for little when a farmer
11 markets his product down the road.

12 And we would ask that you consider that
13 to the overall assessment of that alternative of
14 disposing over the aquifer. In other words, all
15 standards could be met, but significant damage can
16 still be done to the state of Idaho economy.

17 While it's not within the scope of what
18 you're looking at, we would also ask that you
19 consider the issue of the existing radioactive
20 waste management complex, which does currently
21 dispose of low-level radioactive waste in a
22 facility on site.

23 We understand the department is planning
24 to go close that facility sometime in the early
25 part of the next decade. We commend that decision

Page 93

1 and recommend that that decision be accelerated.

2 And, finally, in relation to looking at
3 the cost of disposal for public versus private
4 disposal, we note that -- and we received the
5 explanation earlier that off-site disposal would be
6 markedly more expensive than an on-site solution.

7 So setting aside the environmental
8 policy issue, which I noted earlier, I would
9 suggest that a sharpening of pencils would be
10 appropriate to look at what the actual costs of
11 these other off-site options for disposal might
12 be. Particularly, if you're looking at comparing a
13 newly developed DOE on-site disposal facility,
14 which would include all the engineering work, all
15 the contractor work, all the coordination among
16 contractors and among government agencies,
17 essentially that it be a fully loaded cost
18 estimate, not simply the cost of disposal once the
19 place was opened and ready to accept waste. That
20 it really be a fully loaded cost, to consider all
21 the development expenses including the government
22 agencies involved, if those costs then become
23 paired against private sector options and also
24 existing DOE facility options.

25 With that, I thank you for your time and

Page 94

1 I apologize for taking things out of turn.

2 MR. PIERRE: Do other people want to
3 formally comment now or continue with the
4 questions?

5 MR. JENKINS: Do we have any notice
6 other questions before we go to public comment?

7 AUDIENCE MEMBER: Why don't you go ahead
8 and do the comments.

9 MR. SIMPSON: I just wanted to remind
10 people that your comments will be responded to in
11 the responsive summary section in the Record of
12 Decision, which is supposed to be signed this next
13 summer.

14 AUDIENCE MEMBER: My name is Pamela
15 Allister. I'm speaking as the executive director
16 of the Snake River Alliance, and I live in Boise.
17 And with your permission, I'm going to read into
18 the record a soon-to-be-published, over the next
19 day or two, article in our newsletter, and then we
20 will give you a written copy when we get it
21 finalized.

22 "Building bombs is a dirty business and
23 the dirtiest production step of all is reprocessing
24 spent nuclear fuel to extract bomb ingredients.
25 Only three sites" -- this may be four -- "ever

Page 95

1 processed spent fuel, yet reprocessing accounts for
2 99 percent of their radioactivity and all of DOE's
3 waste.

4 "INEEL reprocessed from 1952 to 1992 and
5 as a result, parts of the Chem Plant are intensely
6 contaminated. A clean-up plan for the Chem Plant
7 has been published and public comments may continue
8 to be received until December 22nd. The goals are
9 that the Chem Plant be clean enough for people to
10 live there by 2095 and that contamination then in
11 the Snake River aquifer be low enough for people to
12 get water nearby.

13 "Contaminated soil and water aren't easy
14 to fix. Capping some of the waste and limiting the
15 waste above the contamination so it won't be driven
16 down toward the aquifer so readily, with monitoring
17 for the foreseeable future, is one idea.

18 "Under the plan, contaminated soil not
19 capped or protected by buildings would be moved to
20 a lined and capped soil dump that might cover
21 54 acres. Most of the options seem reasonable with
22 a heartbreaking caveat. It is increasingly
23 apparent that when INEEL cleanup is done, an
24 enormous amounts of nuclear contamination will
25 remain above the Snake River aquifer. A cumulative

Page 96

1 extent of the remaining parallel will remain
2 unknown until most of the predicted clean-up
3 sources are gone.

4 "The Chem Plant clean-up plan
5 illustrates the site-wide problem. The most
6 serious environmental threats are in and around the
7 Tank Farm that holds the radioactive acids left by
8 reprocessing. There are 20 underground liquid
9 storage tanks ranging from size of 18,000 gallons
10 to 3,000 gallons. Spills and leaks in the Tank
11 Farm piping account for 95 percent of the
12 radioactivity in Chem Plant soils and that dirt is
13 in a direct column to the aquifer.

14 "Decisions about the Tank Farm have yet
15 to be made. Those decisions will limit the soil
16 clean-up options. Further, there are dozens of
17 buildings at the Chem Plant and some are highly
18 contaminated. The current plan doesn't address how
19 or when to decontaminate those buildings. We won't
20 even know what waste will be allowed in the soil
21 dump until after it's approved. We are told that
22 INEEL cleanup is going forward. Where will we be
23 when we get there? What will be left behind?"

24 I would also like to say that I
25 appreciate a great deal the effort that you have

Page 97

1 made with this particular plan. Both to prepare
2 it -- I think it's one of the most clearly and
3 easily read plans that I have had to tackle on my
4 late night journeys through these documents.
5 And I also really appreciate the fact
6 that you are spending so much time and energy going
7 into the communities. I do not think you bear the
8 responsibility in any way that people feel an
9 overload and can't always get here. I appreciate
10 very much the presentation that you gave tonight.
11 It was clear, concise, speedy, and very
12 understandable.

13 Now, I'm going to change hats for just a
14 moment. I'm going to speak as Pam Allister, a
15 citizen who lives in Boise, Idaho. Very quickly, I
16 would like to say that I have a great deal of
17 personal concern -- this is not a statement on
18 behalf of the alliance -- about the percolator,
19 percolation ponds and about the use of the millions
20 of gallons of water that are, basically, sucked up
21 out of the aquifer, dispersed through this DOE
22 facility and then dropped back down into the
23 aquifer and pushing contaminants along.

24 I have a great deal of concern that this
25 is not well thought out and has not been well

Page 98

1 thought out, and I shudder with fear as I listen to
2 some of the proposed new missions for INEEL. I
3 believe that until -- I propound that until
4 cleanup has been accomplished in a satisfactory
5 way, that we should not begin another mission of
6 any great extent at INEEL, particularly if it is
7 going to use the natural resources of water or the
8 natural resources that are involved in generating
9 electricity for these enterprises. Thank you.

10 MR. SIMPSON: Thanks, Pam. Would anyone
11 else like to make any comments? Emily? Sorry, I
12 don't mean to put you on the spot.

13 MR. PIERRE: If not now, at least
14 consider filling out the --

15 AUDIENCE MEMBER: I will do a written
16 comment.

17 MR. SIMPSON: We do have postage-paid
18 comment forms and the proposed plan also has a
19 form.

20 MR. PIERRE: Would you like to make any
21 comments?

22 AUDIENCE MEMBER: If I make may
23 comments, I will make them written, thanks.

24 MR. SIMPSON: Just to remind you that
25 the comment period ends on December 22nd. Until

Page 99

1 that time, if you have questions reviewing the
2 plan, you can call me or --

3 MR. PIERRE: Before you wrap up, are
4 there other questions? You sound like you're
5 wrapping up. Are there other questions people
6 wanted to ask us?

7 AUDIENCE MEMBER: Can you give a few
8 words to the different initiatives that they are
9 that Pam did mention about the new things that they
10 are using at INEEL because I know they want to perc
11 up their image of a dead site.

12 MR. PIERRE: Venture Star are making
13 fuel batteries, RTGs, thermal electric generators
14 are a couple of the items being discussed.

15 Most of the ones that I know that are
16 being discussed do not involve the INTEC facility.
17 As I said, I just don't know of anybody seriously
18 talking about any future use of the INTEC. The
19 Venture Star and RTG would be up at the Test Area
20 North location.

21 AUDIENCE MEMBER: We spent a lot of time
22 looking into the past. We don't know what is in
23 the future.

24 MR. SIMPSON: Any other questions? And
25 just getting back to what I said, when you're

Page 100

1 reviewing this document, if you have questions,
2 give me a call or give any one of the project
3 managers a call, and we'll offer a briefing. I
4 have had a request from Beatrice for a briefing, so
5 I'll put that together.

6 Also, we will be back in Boise this next
7 spring when we'll be talking about clean up of the
8 Central Facilities Area, which is Waste Area
9 Group 4, and also Waste Area Group 5, which is the
10 Power Burst Facility and Auxiliary Reactor Area.

11 MR. PIERRE: Any questions of the high
12 level waste guys in the back?

13 AUDIENCE MEMBER: We'll get you next
14 time.

15 AUDIENCE MEMBER: Is the Idaho Statesman
16 here, I wondered?

17 MR. SIMPSON: Actually, I checked
18 today. Rocky was on vacation.

19 With that, I would just like to thank
20 you for coming out, and once again, thanks for your
21 continued support, and we'll see you in the spring.

22
23 (Meeting concluded at 9:40 p.m.)
24
25

STATE OF IDAHO

} ss.

County of Ada)

I, NANCY SCHWARTZ, a Notary Public in
and for the State of Idaho, do hereby certify:

That said hearing was taken down by me
in shorthand at the time and place therein named
and thereafter reduced to computer type, and that
the foregoing transcript contains a true and
correct record of the said hearing, all done to the
best of my skill and ability.

I further certify that I have no
interest in the event of the action.

WITNESS my hand and seal this 30th day
of December, 1999.

Nancy Schwartz
Nancy Schwartz, Notary
Public in and for the

State of Idaho

My commission expires:

September 28, 1998

-S-		1968 [1] 22:4	24:23 26:17 28:3	80 [3] 20:20 34:23	acre [1] 56:16
\$175 [1] 7:21		1974 [1] 51:1	29:21 34:11 36:22	74:23	acreage [1] 48:8
\$260 [2] 45:5	45:6	1976 [2] 28:14 28:25	45:7 53:22 54:1	82,000 [1] 25:15	acres [3] 48:15 48:17
\$783 [1] 59:24		1984 [5] 29:8 42:20	55:8 58:18 64:25	83702 [1] 1:23	95:21
-I-		49:19 51:8 54:10	77:9	84 [3] 30:22 30:22	acronym [2] 83:1
'50s [2] 16:17 30:25		1987 [1] 52:17	3,000 [3] 56:9 96:10	33:20	83:1
'52 [1] 22:4		1989 [2] 50:2 51:13	30 [8] 3:23 8:9	88 [1] 48:15	acronyms [1] 83:1
'57 [1] 31:1		1992 [1] 95:4	40:20 43:20 57:4	89 [1] 2:4	act [8] 11:18 12:1
'58 [1] 31:1		1995 [1] 80:5	67:15 72:21 83:6	890 [1] 7:1	18:3 19:3 22:25
'61 [2] 50:18 50:19		1997 [1] 80:8	300 [1] 50:7	-9-	
'80s [1] 85:1		1998 [4] 1:11 3:1	30th [1] 101:14	9 [1] 39:4	acting [1] 23:2
'91 [2] 70:12 70:13		61:12 101:20	35 [3] 32:3 60:1	90 [2] 35:5 72:21	action [27] 9:13
'99 [4] 37:16 72:14		1999 [1] 101:15	60:2	94 [4] 2:3 30:22	15:4 20:5 20:9
72:16 73:25			380 [1] 40:22	31:2 31:5	20:23 23:6 23:11
-1-		-2-		95 [3] 10:2 16:2	26:8 26:12 29:14
1 [15] 12:18 12:19		2 [20] 20:2 20:14	-4-	96:11	29:16 31:21 33:4
12:23 12:23 12:25		21:25 22:1 23:12	4 [8] 29:24 30:17	99 [1] 95:2	33:5 33:8 34:22
16:10 17:10 17:11		23:16 23:20 24:9	43:18 44:3 55:8	99 [1] 95:2	37:11 44:21 57:23
34:11 38:3 42:23		24:22 26:13 29:18	58:18 88:15 100:9	9:40 [1] 100:23	59:4 59:12 70:9
55:5 64:23 74:3		33:14 34:11 38:3	40 [5] 10:10 25:14	-A-	
82:2		42:23 43:21 46:10	30:22 32:3 40:7	abandoned [1] 29:2	actions [7] 19:4
1/12th [1] 46:1		49:25 56:8 64:24	400 [1] 28:20	ability [3] 11:10	27:22 63:7 63:7
10 [19] 5:19 7:2		20 [6] 24:24 28:7	420 [1] 40:23	66:21 101:11	63:11 74:21 74:24
7:4 16:19 17:11		45:5 59:25 60:4	460 [4] 41:2 48:18	able [3] 30:4 57:23	active [3] 19:22
25:18 26:1 26:5		96:8	49:24 83:15	83:4	59:5 59:18
28:19 35:20 38:1		20,000 [1] 54:6	48 [1] 9:22	above [3] 36:9	activities [4] 68:24
38:24 39:1 46:5		20.1 [1] 54:19	4A [1] 27:4	38:1 38:19 38:24	68:25 69:3 76:3
63:1 68:8 72:20		200 [2] 13:6 43:14	-5-	39:2 52:10 95:15	activity [2] 83:25
83:6 91:1		2000 [6] 18:1 52:16	5 [2] 46:5 100:9	95:25	85:19
10,000 [3] 12:18		66:8 73:25 75:18	50 [2] 8:6 86:13	absorbed [1] 46:3	actual [4] 27:10
12:19 12:23		76:14	500,000 [1] 42:3	absorption [1] 45:23	29:7 71:3 93:10
100 [23] 12:8 13:4		2001 [1] 67:2	535 [1] 28:21	accelerated [1] 93:1	acute [1] 31:23
17:3 17:10 30:23		2035 [1] 21:20	54 [1] 95:21	accept [3] 38:19	Ada [1] 101:2
33:22 33:24 34:18		208-345-2773 [1] 1:24	598 [1] 49:23	91:13 93:19	ADAC [1] 13:8
35:5 36:10 38:19		208-424-1231 [1] 1:24	5th [1] 71:15	acceptable [5] 10:3	add [1] 71:22
38:23 38:24 39:2		2095 [1] 95:10	-6-	11:4 12:17 12:22	added [1] 45:9
41:5 43:14 44:18		20th [2] 71:14 71:16	6 [3] 7:3 21:25	17:12	addition [2] 25:25
47:25 57:25 58:14		22nd [4] 3:24 61:12	30:21	acceptance [2] 15:17	30:15
60:13 62:21 64:12		95:8 98:25	60 [5] 8:7 8:10	15:18	additional [4] 3:23
100,000 [1] 12:25		23,000 [1] 50:20	38:22 40:7 40:9	access [2] 32:2	26:5 28:21 45:8
11 [5] 9:22 16:7		23/24ths [1] 46:3	601 [2] 22:19 23:22	87:17	address [6] 10:23
50:1 58:17 59:4		24 [1] 46:1	603 [3] 22:5 28:16	accomplished [1] 98:4	61:10 69:19 71:10
11/12ths [1] 46:3		240 [1] 17:2	28:17	account [2] 92:10	71:25 96:18
110 [2] 40:9 40:10		2421 [1] 1:23	604 [1] 22:9	96:11	addressed [3] 18:8
12 [2] 43:22 46:1		25 [1] 43:20	605 [1] 22:9	accounts [1] 95:1	52:21 70:1
12.3 [1] 54:18		86:11	61 [1] 91:1	acetylene [1] 30:24	adequate [1] 23:3
140 [1] 40:21		276 [1] 17:1	640-gallon [1] 28:19	achieve [8] 13:19	adjacent [1] 31:13
15 [3] 37:12 54:24		28 [1] 101:20	690 [1] 42:24	14:18 14:23 64:10	administered [1] 68:25
59:2		2A [1] 59:13	-7-	64:14 74:21 78:22	administrative [4] 15:10 16:4 26:14
16 [1] 57:11		2B [3] 59:10 59:17	7 [3] 21:25 28:12	81:16	63:9
175 [1] 68:11		59:24	34:12	achieved [1] 60:15	Advanced [3] 35:16
18 [2] 1:11 3:1		-3-		acid [6] 8:25 8:25	35:22 39:2
18,000 [1] 96:9		3 [27] 3:9 3:12	7,000 [2] 50:21	9:3 18:16 31:3	Advisory [3] 4:9
1952 [4] 8:14 49:19		4:13 5:22 7:7	51:24	32:10	67:22 85:25
84:23 95:4		8:16 8:16 9:25	-8-	acids [1] 96:7	aesthetic [1] 52:12
1957 [1] 28:14		17:6 20:17 21:9	8 [2] 42:4 53:23	acknowledges [1] 81:9	affected [2] 85:9
1960s [1] 89:25		21:25 23:16 24:18		acknowledging [1] 80:24	85:10
1961 [1] 50:16				Acquisition [1] 73:18	against [2] 14:7
					93:23
					agencies [11] 6:7
					15:15 23:20 26:7

29:13 61:17 61:19 65:6 70:11 93:16 93:22	59:11 59:12 59:13 59:17 59:19 59:24 59:24 74:6 74:14 75:4 75:6 90:15 90:19 92:13	59:7 64:9 93:10 approved [1] 96:21 April [1] 80:8 aquifer [80] 6:5 13:22 17:17 17:18 19:13 19:14 20:16 20:22 23:7 26:3 26:9 29:6 29:15 39:15 40:4 40:4 41:1 41:1 41:3 41:5 41:14 42:13 42:15 44:5 44:8 44:16 44:17 47:13 47:23 48:18 48:24 49:4 49:12 49:14 49:17 49:24 50:6 50:10 54:22 55:2 56:2 56:12 57:24 58:13 58:15 58:25 59:2 59:16 59:22 60:12 60:24 62:20 64:10 64:22 64:24 74:20 77:15 82:10 82:15 82:22 83:14 83:15 83:16 83:21 83:22 84:6 84:25 88:3 90:13 90:14 90:22 91:19 91:25 92:14 95:11 95:16 95:25 96:13 97:21 97:23	assumptions [1] 58:23 assurance [2] 87:20 87:22 assure [1] 38:23 assuring [1] 19:23 atmospheric [1] 25:2 atoms [1] 57:19 attempt [1] 20:19 attempted [1] 46:24 attending [1] 3:4 attention [1] 6:21 attenuate [1] 47:24 attenuated [1] 82:6 attenuation [2] 18:13 82:4 attitude [2] 79:5 81:25 audience [113] 10:4 13:1 18:23 21:15 21:21 23:21 24:5 24:14 27:5 27:8 27:12 27:16 27:21 28:2 28:9 30:3 31:6 31:15 32:1 32:7 32:14 32:19 33:20 34:1 34:5 34:8 34:25 35:7 35:10 35:13 36:3 36:14 36:15 37:3 37:13 37:16 37:21 38:16 39:5 41:12 46:14 46:20 47:4 48:3 48:6 48:12 48:19 50:13 51:4 51:6 51:18 52:3 52:25 53:17 55:9 55:12 55:17 55:25 56:9 60:5 60:20 61:1 61:16 61:22 62:25 63:24 64:18 65:2 65:12 65:15 65:20 65:25 67:9 68:15 69:15 70:14 70:19 71:24 72:1 72:5 73:3 74:2 74:5 74:11 75:10 76:6 76:9 77:23 78:5 79:7 79:18 79:20 79:24 79:25 81:10 82:9 82:18 84:19 84:21 87:4 88:18 89:7 89:14 89:16 89:18 94:7 94:14 98:15 98:22 99:7 99:21 100:13 100:15 Auxiliary [1] 100:10 availability [1] 15:9 available [9] 24:20 35:25 57:24 58:15 68:5 71:15 72:6 73:4 78:3 average [2] 43:10 43:13 averaged [1] 35:5	avoid [1] 82:25 awareness [1] 85:11 away [8] 10:10 22:20 24:20 24:21 33:21 33:21 59:14 61:14 awful [2] 7:21 83:17 -B- background [3] 8:13 12:25 21:16 balance [1] 86:23 balancing [1] 15:15 ballpark [1] 88:17 bar [1] 60:2 basalt [2] 25:13 40:21 basalts [2] 40:10 40:22 base [3] 11:17 14:2 20:6 based [15] 21:3 23:5 23:19 25:14 26:7 27:3 29:13 30:16 32:15 33:4 33:13 36:7 46:21 66:9 89:21 baseline [4] 10:18 10:19 67:2 67:5 basic [1] 83:5 basin [1] 22:3 basis [6] 11:5 11:11 19:4 27:8 50:18 67:14 batteries [1] 99:13 beam [1] 46:25 beamed [1] 46:25 bear [2] 62:9 97:7 bearing [1] 75:13 Beatrice [1] 100:4 became [1] 35:24 become [4] 12:20 35:2 72:19 93:22 becomes [1] 73:22 began [1] 8:14 begin [4] 44:22 59:6 61:14 98:5 behalf [1] 97:18 behind [1] 96:23 belief [1] 11:20 below [10] 16:19 26:1 26:5 28:19 37:18 38:24 39:1 40:22 57:20 83:15 beneath [3] 32:6 47:6 47:10 beneficial [2] 44:18 57:24 benefit [1] 64:14 berming [1] 75:2 best [8] 14:12 21:10 23:20 60:14 66:17
agencies' [2] 30:17 33:13 agency [3] 5:18 63:9 66:2 agency's [1] 27:3 agenda [2] 4:16 5:10 agents [1] 12:15 ages [3] 62:2 62:4 62:19 aggressive [3] 45:2 59:20 60:10 ago [2] 78:25 80:18 agree [1] 7:17 agreement [16] 3:19 18:8 19:2 37:22 38:4 38:5 38:6 39:7 39:8 39:10 63:4 68:16 68:25 69:2 69:5 69:20 agreements [2] 68:20 68:23 agricultural [1] 92:6 agriculture [1] 48:25 ahead [5] 48:5 63:16 67:7 87:4 94:7 air [1] 69:13 airplane [1] 54:4 Aleutian [1] 13:9 alliance [3] 86:16 94:16 97:18 Allister [3] 2:3 94:15 97:14 allocate [1] 65:16 allocation [1] 65:3 allow [5] 23:7 26:9 29:14 40:16 44:16 allowed [1] 96:20 allowing [1] 54:13 almost [1] 63:5 alone [2] 42:10 47:15 along [2] 79:25 97:23 alternate [1] 44:13 alternative [54] 10:1 11:8 14:1 14:6 14:13 14:18 14:19 14:22 15:5 20:6 20:14 20:17 21:9 21:9 23:12 23:16 23:16 23:20 24:9 24:18 26:13 26:17 27:4 28:3 29:18 29:21 29:24 30:17 33:14 34:13 34:21 35:2 35:4 44:20 44:21 44:21 45:6 46:9 46:10 59:10	alternatives [26] 7:15 7:16 7:17 11:6 11:7 13:13 13:17 13:18 14:7 14:10 14:12 15:21 19:5 19:11 20:5 20:10 26:11 26:19 27:22 29:16 33:7 60:6 60:9 70:17 75:24 90:15 always [3] 17:19 20:7 97:9 American [1] 89:20 among [2] 93:15 93:16 amount [3] 48:9 51:1 66:13 amounts [2] 50:23 95:24 analysis [7] 10:17 31:20 62:4 64:14 76:23 78:15 78:17 analytical [1] 57:14 Anderson [1] 1:23 anecdotally [1] 31:16 answer [17] 4:19 32:23 39:22 49:8 52:24 61:8 63:17 67:8 73:1 73:16 73:25 79:16 81:14 83:13 86:18 87:2 87:25 answered [3] 4:24 53:18 84:20 answering [1] 84:16 answers [2] 5:4 20:11 Anthony [1] 56:13 Anti-deficiency [1] 65:7 apologize [1] 94:1 apology [1] 88:19 app [3] 79:15 79:19 81:24 apparent [1] 95:23 applicable [1] 64:8 application [5] 52:8 69:10 69:11 69:25 79:21 apply [4] 15:11 66:16 68:6 91:6 appreciate [5] 6:24 85:4 96:25 97:5 97:9 approach [10] 13:12 44:9 44:22 45:3 46:10 59:6 59:20 66:23 70:6 70:11 approaches [1] 91:22 appropriate [4] 44:10	59:7 64:9 93:10 approved [1] 96:21 April [1] 80:8 aquifer [80] 6:5 13:22 17:17 17:18 19:13 19:14 20:16 20:22 23:7 26:3 26:9 29:6 29:15 39:15 40:4 40:4 41:1 41:1 41:3 41:5 41:14 42:13 42:15 44:5 44:8 44:16 44:17 47:13 47:23 48:18 48:24 49:4 49:12 49:14 49:17 49:24 50:6 50:10 54:22 55:2 56:2 56:12 57:24 58:13 58:15 58:25 59:2 59:16 59:22 60:12 60:24 62:20 64:10 64:22 64:24 74:20 77:15 82:10 82:15 82:22 83:14 83:15 83:16 83:21 83:22 84:6 84:25 88:3 90:13 90:14 90:22 91:19 91:25 92:14 95:11 95:16 95:25 96:13 97:21 97:23 aquifers [1] 80:10 area [40] 3:9 3:11 4:5 4:13 5:21 7:2 7:3 7:3 8:17 22:14 24:10 28:18 29:12 31:14 32:13 32:25 36:24 36:25 43:17 48:16 49:8 53:21 54:2 54:3 54:4 54:14 55:4 56:18 58:25 64:19 67:20 77:11 82:5 87:16 88:6 99:19 100:8 100:8 100:9 100:10 areas [3] 26:15 43:17 45:17 arises [1] 49:17 article [1] 94:19 aside [1] 93:7 aspects [1] 64:1 assess [2] 14:6 15:8 assessed [2] 10:2 14:9 assessing [1] 8:2 assessment [5] 11:25 13:14 31:22 73:11 92:13 associated [8] 17:22 29:12 31:19 31:23 32:20 32:22 33:6 45:23 assume [1] 51:13 assumption [1] 24:14		

75:8	78:1	101:11	87:7	Center [2]	3:14	clarifying [2]	9:19	committing [1]	65:8
better [4]	49:4		brought [1]	8:18		21:12		common [4]	70:5
75:5	77:20	87:24	budget [5]	53:21	54:2	classify [1]	38:9	85:5	86:13
between [14]	11:12		66:10	66:19	66:23	clay [1]	40:24	communities [1]	97:7
11:12	14:11	30:22	67:19			clean [8]	9:10	community [4]	3:5
40:3	40:24	43:14	budgeting [1]	66:6		9:12	9:16	4:14	15:17
43:20	45:4	45:5	build [4]	15:5		18:21	70:15	company [4]	73:10
45:25	46:5	51:12	24:12	72:25	89:1	100:7		89:23	90:1
55:8			building [7]	22:25		clean-up [8]	4:3	compare [1]	11:10
beyond [2]	46:20		23:22	24:11	24:19	24:4	69:3	compared [1]	7:24
64:25			83:8	91:12	94:22	95:6	96:2	comparing [2]	11:5
bid [1]	72:11		buildings [4]	5:24		96:16		93:12	
bidder [1]	73:21		95:19	96:17	96:19	cleaner [1]	58:22	comparison [8]	14:3
big [4]	33:21	36:4	built [1]	56:22		cleaning [1]	91:10	20:6	23:11
43:2	45:18		bullet [1]	6:17		cleanup [4]	1:1	29:17	33:8
billion [1]	50:2		bumped [1]	83:25		95:23	96:22	63:12	
bit [6]	9:18	41:10	buried [3]	5:25		cleanups [1]	91:23	compassionate [1]	88:21
41:18	52:23	84:18	9:2	16:18		clear [2]	60:4	complete [2]	39:16
88:2			Burst [1]	100:10		clearly [3]	12:16	76:20	
black [1]	55:9		business [1]	94:22		79:17	97:2	completed [3]	3:17
blew [1]	50:5		buy [1]	83:9		close [3]	6:8	4:23	18:1
Bliss [1]	56:13					92:24		complex [7]	3:20
block [1]	24:12					closed [1]	17:22	22:9	22:19
blow [1]	78:21					closer [3]	54:11	56:22	86:19
BNFL [1]	39:2					closure [2]	11:17	68:17	69:1
board [3]	4:9					coal [1]	43:24	68:17	69:1
68:6	85:25					coefficient [2]	45:23	8:5	8:7
Bob [6]	73:9	73:12				45:25		comply [3]	14:16
78:10	80:19	80:19				coils [1]	53:4	37:21	64:7
88:4						collect [2]	19:25	complying [1]	79:3
bodies [8]	41:25					28:14		comprised [1]	24:23
42:7	42:18	45:14				collection [1]	27:1	computer [3]	56:23
47:3	47:5	47:9				column [1]	96:13	58:11	101:8
76:1						com [1]	71:13	concentrate [1]	7:8
body [3]	42:11	62:12				combine [1]	7:3	concentration [4]	21:3
62:12						coming [4]	65:13	21:3	30:12
boggling [1]	86:20					84:15	89:3	58:12	
Boise [8]	1:10					commend [2]	90:5	concentrations [11]	16:25
1:23	3:1	4:4				92:25		16:25	29:7
89:21	94:16	97:15				comment [16]	2:1	41:24	51:14
100:6						3:23	4:13	55:6	57:19
bomb [1]	94:24					61:11	70:25	81:3	81:4
bombs [1]	94:22					89:5	89:8	concepts [1]	83:5
bone [1]	83:7					90:10	94:3	conceptual [6]	36:21
bottom [2]	45:11					98:16	98:18	37:1	37:4
59:2						comments [14]	5:5	69:16	72:20
bounce [1]	47:1					6:22	7:14	concern [8]	38:14
boundaries [2]	57:3					61:6	61:9	43:18	49:12
57:25						90:3	94:8	56:19	57:21
boundary [2]	57:13					95:7	98:11	97:24	
57:22						98:23		concerning [1]	37:23
boxes [1]	25:3					commercial [3]	89:23	concerns [3]	14:21
Boy [1]	86:19					90:22	91:2	15:10	39:19
branch [1]	66:2					commission [1]	101:19	concise [1]	97:11
break [1]	62:23					commitment [2]	19:19	concluded [1]	100:23
breakdown [1]	32:11					commitments [1]	63:9	concrete [4]	24:12
brief [2]	9:23	89:19				committed [2]	62:20	29:19	29:23
briefing [2]	100:3					64:4		50:7	
100:4						committee [3]	67:22	condensation [1]	44:2
bring [1]	61:25					67:24	67:25	condition [2]	73:19
broken [1]	86:21							80:24	
brothers [2]	85:15								

conditions [3] 51:10 79:4 80:22	contaminant [6] 45:2 46:2 46:6 51:23 54:21 55:24	cooling [3] 53:4 53:4 53:8	curious [1] 48:22	decommissioning [1] 76:10
conducted [1] 25:19	contaminants [19] 12:24 17:5 17:9 17:15 20:21 38:14 40:1 41:20 42:15 44:5 45:22 46:12 47:12 50:24 56:19 74:20 87:13 87:15 97:23	coordinated [1] 18:5	current [10] 10:20 12:14 26:10 52:8 52:14 67:4 75:23 76:4 76:13 96:18	decon [1] 24:25
confidence [3] 35:6 38:20 38:23	contaminated [19] 16:24 19:15 19:16 20:18 21:14 21:23 22:17 23:9 25:1 25:4 25:6 25:7 43:17 53:2 59:9 95:6 95:13 95:18 96:18	coordination [1] 93:15	cursory [1] 32:24	deconing [2] 23:25 24:3
confident [2] 30:5 58:13	contamination [12] 13:20 25:11 26:1 29:15 39:24 49:6 49:17 50:9 58:6 95:10 95:15 95:24	coordinator [1] 3:6	cut [1] 28:25	decontaminate [1] 96:19
confidential [1] 73:21	contents [3] 31:14 32:4 33:10	copies [1] 85:20	cutting [1] 30:8	decontamination [1] 28:15
confidentiality [2] 73:7 73:19	Contingency [3] 10:15 12:23 14:15	copy [2] 6:14 94:20	cycle [3] 66:7 82:19 83:19	deep [2] 45:10 49:23
confused [1] 52:24	contingent [3] 24:19 59:5 59:14	cord [1] 50:4	cycles [1] 66:24	Defense [2] 11:18 13:8
Congress [11] 12:1 12:3 15:1 65:14 65:15 65:17 66:3 66:4 67:6 67:10 68:2	continually [1] 60:6	corner [1] 43:7	cylinders [8] 6:1 30:23 30:24 31:10 31:13 32:18 33:10 33:16	deferred [1] 23:6
connected [2] 16:8 16:9	continue [7] 48:1 75:15 76:15 77:21 89:13 94:3 95:7	Corporation [1] 89:20	-D-	defined [1] 74:24
conscious [1] 86:10	continuing [2] 58:5 79:12	correct [8] 10:7 34:13 46:18 46:23 58:24 60:3 61:21 101:10	D&D [2] 22:24 23:15	definer [1] 17:4
consensus [1] 61:20	contour [3] 53:24 54:11 57:5	corresponding [1] 57:6	damage [1] 92:15	delineating [1] 47:3
consent [6] 3:19 9:14 38:6 63:4 69:5 70:4	contract [2] 72:24 73:20	corresponds [3] 53:23 54:3 55:4	damages [1] 64:16	Dennis [2] 31:8 32:16
consequences [1] 85:16	contracted [1] 70:20	corridor [1] 7:6	data [6] 41:18 60:8 60:17 78:2 83:12 86:8	department [17] 5:23 6:2 11:18 13:7 21:24 27:11 57:1 61:18 66:1 66:12 68:4 71:6 78:8 81:15 84:22 91:7 92:23
Conservation [1] 69:9	contracting [1] 73:15	corroded [1] 22:20	date [4] 51:6 65:24 83:21 84:14	depend [2] 71:20 72:3
conservative [2] 12:20 62:8	contractor [9] 50:3 71:3 71:8 71:18 71:19 71:21 72:11 72:12 93:15	cost [14] 7:20 15:12 27:14 27:19 45:4 48:22 48:24 59:23 64:13 68:10 93:3 93:17 93:18 93:20	Davis-Bacon [1] 72:4	dependant [1] 19:20
consider [5] 13:1 92:12 92:19 93:20 98:14	contracts [5] 70:14 70:23 71:4 72:6 73:4	costing [1] 60:11	days [2] 3:23 87:11	depending [4] 36:5 36:21 37:6 37:7
consideration [3] 7:19 66:18 66:20	contrary [1] 9:18	costly [2] 27:7	dead [1] 99:11	depth [2] 25:17 41:2
considerations [1] 82:11	contrast [1] 42:3	costs [4] 7:21 27:9 93:10 93:22	deal [6] 7:22 26:6 79:11 96:25 97:16 97:24	depths [1] 58:20
considered [2] 64:12 65:3	contribution [5] 42:9 42:14 43:3 43:13 43:16	counting [1] 57:18	dealing [5] 12:24 33:16 75:25 82:18 89:23	derived [1] 27:9
considering [1] 14:19	control [1] 59:15	country [2] 13:6 89:24	Dean [1] 67:23	describe [1] 66:23
consists [5] 16:11 30:21 31:2 40:7 49:17	controlled [1] 87:18	County [1] 101:2	debris [1] 69:22	described [1] 72:23
constituents [2] 38:15 81:2	controls [4] 19:21 20:14 26:14 59:18	couple [12] 16:16 25:12 28:4 45:9 48:3 51:9 51:11 61:2 61:3 68:8 77:3 99:14	decade [2] 68:14 92:25	desert [1] 45:15
construct [7] 26:23 27:14 36:22 36:23 69:14 77:9 77:11		course [1] 85:18	decay [4] 46:12 54:16 54:16 59:14	design [9] 24:17 26:4 70:9 72:19 72:20 72:21 72:21 72:22 83:6
constructed [3] 16:13 28:13 79:1		court [1] 5:7	decayed [1] 51:25	designation [1] 3:13
constructing [1] 22:7		courtesy [1] 85:11	December [6] 3:24 61:12 71:15 95:8 98:25 101:15	designations [1] 16:1
construction [1] 16:16		cover [2] 41:16 95:20	decide [3] 11:7 19:1 74:6	designing [1] 61:14
contact [2] 19:16 23:8		create [1] 42:10	decided [3] 12:3 13:14 32:25	detail [1] 62:16
contained [1] 28:23		creates [1] 43:25	decision [17] 4:2 37:12 61:13 65:11 70:2 71:1 72:15 72:17 75:7 75:19 77:9 77:22 80:13 86:10 92:25 93:1 94:12	detailed [3] 4:22 4:24 63:18
containers [3] 32:4 32:5 36:1		cribs [1] 88:1	decisions [5] 11:12 60:15 63:8 96:14 96:15	detectable [1] 33:3
containing [1] 31:3		criteria [8] 8:2 14:8 14:11 14:14 34:18 64:5 75:8 75:9	declining [1] 84:1	detected [2] 16:25 57:14
containment [4] 14:4 22:14 23:12 29:18		critical [1] 64:20	decommissioned [1] 21:18	detecting [1] 41:20
contains [1] 101:9		cubic [2] 25:15 48:8		determine [3] 10:22 12:17 84:13

development [2] 37:5 93:21	55:2 91:14 91:15	88:14	eliminate [1] 44:7	EPA's [2] 9:7
Dialogue [2] 67:24	disposing [2] 44:14	drinking-water [1] 13:22	eliminating [1] 46:10	70:7
67:25	92:14		Elimination [2] 79:14	equilibrium [1] 58:8
difference [3] 45:4	dissolution [5] 8:23	driven [1] 95:15	79:16	equipment [2] 22:10
45:5 59:23	54:15 55:23 57:8	driver [1] 25:8	elsewhere [2] 14:5	25:1
different [10] 8:11	88:2	dropped [2] 50:4	89:1	equivalent [1] 23:2
36:5 38:12 54:23	dissolve [1] 8:24	dry [3] 22:2 22:7	embankments [1] 75:2	Erie [1] 56:15
61:17 62:6 77:19	dissolved [2] 52:9	44:1	Emily [1] 98:11	Erik [9] 3:5 7:2
90:11 90:18 99:8	Division [1] 6:3	due [2] 25:10 57:7	emission [1] 84:10	7:13 8:14 9:18
difficult [2] 45:19	document [3] 61:18	dug [1] 22:16	emissions [1] 84:11	39:21 61:11 71:11
47:16	69:7 100:1	dump [2] 95:20	emit [1] 84:7	85:18
dig [2] 14:5 21:1	documents [6] 4:11	96:21	emits [1] 15:6	error [1] 60:1
diluted [2] 23:25	6:14 68:1 76:2	during [3] 5:3	enables [1] 40:2	especially [1] 82:2
24:3	85:22 97:4	6:8 26:3	encounter [1] 40:10	essentially [4] 23:16
dilution [1] 81:24	DOE [20] 3:21		encourage [1] 90:8	26:13 29:18 93:17
dioxide [1] 84:10	19:21 19:21 61:17	-E-	end [5] 3:24 12:21	establish [4] 13:18
direct [2] 11:16	63:11 63:12 67:13	e-mail [1] 1:25	45:10 57:10 61:12	14:12 37:8 71:18
96:13	67:15 69:6 70:5	early [3] 30:25 89:25	endangered [1] 87:18	established [5] 10:16
direction [2] 31:25	70:7 72:12 76:6	92:24	endangering [2]	13:24 14:8 14:15
75:9	76:7 78:6 85:19	earthquakes [1] 62:1	87:7 88:20	90:25
directions [1] 36:5	91:15 93:13 93:24	case [1] 7:9	endorses [1] 38:5	estimate [5] 12:21
directly [2] 47:6	97:21	case [1] 7:9	ends [2] 24:2 98:25	27:13 48:8 56:23
47:10	DOE's [1] 95:2	easier [2] 6:13	energy [13] 5:23	93:18
director [1] 94:15	doesn't [9] 14:18	49:8	21:24 57:1 66:12	estimated [2] 36:18
dirt [1] 96:12	16:5 17:12 20:15	easily [1] 97:3	68:4 71:6 78:9	68:10
dirtiest [1] 94:23	21:19 35:25 65:16	easy [1] 95:13	81:15 84:8 84:12	estimating [1] 46:21
dirty [1] 94:22	87:20 96:18	eating [1] 49:1	84:22 91:7 97:6	et [4] 24:15 53:8
discharge [7] 57:12	dollars [1] 60:3	ecological [1] 25:10	enforcing [1] 68:19	60:6 66:10
77:19 79:13 79:13	domain [1] 46:24	ecology [2] 64:15	engaged [1] 9:9	evaluate [2] 14:11
79:14 79:16 81:23	done [10] 13:13	89:20	engineer [1] 85:13	19:7
discharged [2] 44:2	15:16 52:20 63:6	economic [4] 48:23	engineered [4] 23:13	evaluated [1] 59:12
51:16	69:25 70:10 81:12	60:23 68:13 91:25	23:14 26:23 33:11	evaluating [5] 13:13
discharges [1] 50:19	92:16 95:23 101:10	economics [2] 63:23	engineering [7] 3:14	19:5 80:20 80:21
discuss [2] 3:8	dot [1] 71:13	92:2	8:18 9:16 12:2	80:25
63:21	dots [1] 55:9	economics [1] 77:20	68:9 83:18 93:14	evaluation [2] 5:10
discussed [2] 99:14	down [30] 5:2	economy [1] 92:16	80:25	27:16
99:16	5:12 17:16 20:21	effect [1] 92:5	engineers [2] 80:21	evaluations [1] 81:20
discussing [1] 4:5	28:17 40:1 40:13	effective [2] 14:24	80:25	Evans [3] 73:11
discussion [2] 68:16	40:22 42:16 45:11	60:19	enormous [1] 95:24	80:18 84:17
75:11	46:21 46:25 48:18	effectiveness [1] 15:3	ensure [3] 19:19	evapo [1] 83:19
discussions [1] 66:9	50:1 50:4 50:18	effects [1] 82:16	60:18 88:24	evaporation [1] 84:4
disolved [1] 81:3	50:24 50:25 51:20	effluent [2] 52:7	ensuring [1] 59:15	event [1] 101:13
dispersed [1] 97:21	56:8 59:2 62:11	80:14	entered [1] 5:6	eventually [6] 21:17
dispersing [1] 55:19	81:5 84:24 85:2	effort [3] 73:13	entering [1] 17:17	24:1 24:1 29:5
dispersion [3] 54:15	86:21 92:11 95:16	90:5 96:25	enterprises [1] 98:9	36:21 45:12
55:23 57:8	97:22 101:6	65:21	entire [4] 6:8	everybody [1] 86:25
disposal [30] 26:20	dozen [1] 28:4	85:21	21:17 59:22 71:8	everybody's [2]
26:21 26:23 26:24	dozens [1] 96:16	eight [1] 57:12	entity [1] 13:11	6:20 86:12
27:2 27:6 27:11	draft [1] 71:15	EIS [4] 18:25 19:1	entombed [1] 24:11	exact [3] 17:21
27:14 27:17 33:10	drain [5] 22:2 28:18	19:4 64:1	environment [9]	32:13 51:21
36:13 36:17 37:23	45:1 46:12 51:12	either [4] 15:19	6:3 10:19 14:18	exactly [2] 34:14
42:20 49:18 69:16	drains [1] 45:10	63:6 77:18 80:1	22:13 22:21 29:5	75:7
82:25 90:1 90:20	draw [2] 6:20 56:8	elaborate [1] 78:10	64:6 90:24 91:6	example [5] 9:1
90:23 91:2 91:13	drawing [2] 37:1	electric [2] 84:9	environmental [14]	13:8 31:11 82:6
91:16 91:18 93:3	drawn [1] 25:14	99:13	3:7 3:12 3:17	92:6
93:4 93:5 93:11	dried [1] 46:13	electrical [1] 84:12	5:18 9:17 12:3	excavate [1] 23:18
93:13 93:18	drinking [20] 19:13	electrical [1] 84:12	17:25 19:22 63:5	excavated [4] 22:6
disposals [1] 25:3	20:16 41:14 42:4	electricity [1] 98:9	66:15 67:21 69:21	24:21 25:16 34:17
dispose [7] 23:19	42:6 42:11 47:24	electromagnetic [1] 46:24	93:7 96:6	excavating [3] 24:7
26:19 29:25 30:2	47:24 48:25 51:15	elevation [1] 83:23	envisioned [1] 84:7	34:24 38:11
30:15 49:20 92:21	52:11 53:10 54:5		EPA [5] 3:21 56:25	excavation [3] 25:17
disposed [7] 22:4	54:14 55:5 56:17		61:17 69:6 71:13	26:3 35:3
30:25 38:2 51:2	57:21 88:10 88:13			exceed [2] 88:9

88:14	38:6	39:3	43:8	69:4	69:20	70:4	foreseeable [1]	95:17					
exceedance [1]	88:7	44:1	47:11	73:17	90:25		forever [1]	13:10					
exceeded [1]	92:8	48:14	63:4	68:3	feet [27]	16:19	forget [1]	88:17					
exceeds [3]	54:14	68:17	69:14	69:17	25:14	25:18	form [3]	5:10	80:16	gallon [1]	28:21		
55:4	59:4	69:18	70:2	70:4	26:5	28:19	form [3]	5:10	80:16	gallons [20]	28:20		
except [1]	73:21	71:9	78:20	78:22	33:24	40:8	formal [2]	89:5		42:23	42:24	43:14	
exception [1]	53:11	82:25	91:13	92:22	40:9	40:10	89:12			43:19	43:20	43:21	
exchangers [1]	53:6	92:24	93:13	93:24	40:21	40:22	formally [1]	94:3		43:23	44:3	49:25	
excuse [1]	8:8	97:22	99:16	100:10	41:2	41:4	former [1]	41:7		50:2	51:11	56:2	
executive [2]	66:2	Facility's [1]	39:7		48:9	48:18	formerly [1]	3:15		56:7	56:16	82:3	
94:15		facility-wide [1]	3:16		49:24	56:8	forms [2]	4:14		82:7	96:9	96:10	
existing [7]	10:11	fact [6]	4:12	6:21	83:15		98:18			97:20			
68:19	75:18	11:23	30:10	63:10	fence [5]	9:8	forth [2]	76:2	87:12	gas [4]	5:25	30:23	
80:14	92:19	97:5			9:8	43:6	Fortunately [1]	55:1		32:12	33:16		
exists [3]	13:12	factoids [1]	86:8		48:17		forward [6]	8:3		gases [2]		30:25	
19:17	80:24	factor [3]	27:25		fenced [1]	19:18	8:3	35:14	35:17	84:8			
exit [1]	22:15	80:11	82:24		few [5]	5:11	55:14	96:22		gathering [1]	31:15		
expect [6]	18:23	factors [1]	83:8		31:24	80:18	Fossil [1]	84:12		general [3]	21:16		
42:5	57:23	failed [1]	58:2		FFCA [1]	69:1	found [3]	10:3		90:9	91:8		
65:10	72:15	fairly [6]	4:20		fifth [1]	3:16	10:12	22:11		generally [6]	24:24		
expectation [1]	67:19	28:22	41:23	55:23	figure [1]	13:17	four [9]	3:18	10:11	25:21	37:13	62:7	
expectations [1]	67:18	56:22	62:7		fill [3]	29:19	22:1	23:15	29:16	86:18	86:21		
expected [1]	37:14	fall [2]	12:16	52:15	83:9		31:2	56:18	67:14	generated [2]	28:16		
expecting [1]	66:14	Falls [2]	85:24	86:1	filling [1]	98:14	94:25			84:12			
expense [1]	45:8	familiar [1]	6:25		final [3]	21:1	fourth [2]	22:18		generating [1]	98:8		
expenses [1]	93:21	far [22]	3:21	7:12	74:10		75:4			generations [2]	88:6		
expensive [1]	93:6	11:11	16:12	30:10	finalized [1]	94:21	fraction [2]	77:16		88:24			
experiences [1]	88:25	31:12	33:20	33:21	finally [1]	93:2	84:11			generators [1]	99:13		
expert [1]	73:16	33:23	33:25	36:17	finding [1]	44:13	fractured [3]	40:9		gentleman [2]	32:21		
expire [1]	76:13	63:23	64:15	70:22	fine [1]	34:7	40:20	40:22		65:19			
expires [1]	101:19	83:14	83:18	83:20	finish [1]	63:3	frame [5]	62:18		geology [2]	46:16		
explanation [1]	93:5	83:21	83:25	84:2	fire [3]	22:15	64:11	64:13	66:25	48:7			
exposed [1]	87:14	84:3	85:2		63:18		77:1			giant [1]	24:12		
exposure [2]	23:8	Farm [26]	5:21		fired [1]	43:25	frames [4]	36:18		given [3]	8:19		
26:10		16:9	16:10	16:11	first [13]	4:17	37:5	37:9	76:5	52:16	85:8		
exposures [1]	87:17	16:12	17:6	17:7	14:16	15:14	French [1]	22:2		giving [1]	6:16		
extended [1]	3:22	17:15	18:10	18:18	22:2	26:19	frequency [2]	78:14		global [3]	82:11		
extent [4]	25:23	18:19	18:21	18:22	40:10	44:20	78:16			82:15	84:2		
40:4	96:1	19:2	19:12	19:18	87:23	89:25	frequently [1]	60:16		goal [2]	70:7	74:22	
extract [1]	94:24	20:2	24:2	34:16	Firstly [2]	90:4	Fritz [1]	62:22		goals [1]	95:8		
		34:22	34:24	38:11	90:18		front [1]	57:10		goes [5]	7:5	44:3	
		64:25	96:7	96:11	fits [1]	75:8	fuel [3]	8:23	8:24	49:3	53:6	53:12	
		96:14			five [4]	26:11	68:23	84:8	84:12	gone [5]	31:19	42:8	
		farmer [1]	92:10		60:17	83:11	94:24	95:1	99:13	53:5	73:4	96:3	
		FARs [1]	73:17		fix [1]	95:14	full [1]	29:19		good [11]	16:21		
		farther [1]	78:11		flat [2]	66:13	fully [2]	93:17	93:20	25:22	29:6	30:11	
		fast [1]	55:20		flood [1]	75:3	function [1]	16:5		39:12	50:17	56:4	
		fate [3]	18:6	19:2	flow [1]	90:16	functioning [1]	23:2		66:17	68:21	70:17	
		56:22			flows [2]	43:5	fund [2]	67:10	67:11	80:17			
		fault [1]	91:21		45:15		fundamentally [1]	90:11		governed [2]	68:24		
		Fax [1]	1:24		flux [1]	58:5	funding [5]	65:12		76:4			
		fear [1]	98:1		focus [3]	5:13	65:18	66:13	67:13	governing [1]	91:2		
		Feasibility [5]	3:10		84:17	86:15	76:25			government [10]	11:13	11:14	11:19
		4:6	4:18	6:9	focused [1]	25:20	funds [4]	65:3		11:20	11:25	12:1	
		20:2			folks [3]	81:24	65:9	65:10	65:16	13:9	65:23	93:16	
		feasible [4]	13:25		90:5		future [18]	5:14		93:21			
		81:11	81:12	81:15	followed [1]	71:1	10:20	11:24	12:6	Governor's [8]	18:8		
		February [3]	4:4		following [3]	5:4	12:6	18:20	22:24	19:2	37:22	38:4	
		66:25	76:25		food [1]	49:1	26:10	27:22	42:8	38:5	39:6	39:10	
		fed [1]	51:12		foregoing [1]	101:9	56:24	57:24	88:5	68:16			
		federal [15]	3:19		foresce [2]	82:12	88:24	91:13	95:17	Governor-elect [1]	66:4		
		9:14	38:6	39:7	82:14		99:18	99:23		grade [1]	16:19		
		63:4	65:6	65:23						grain [1]	40:16		
		67:21	68:17	69:1									

gram [7] 17:1 34:18 35:5 35:20 38:2 38:20 38:22	18:2 19:3 19:6 hazards [3] 31:19 31:23 33:6	1c [1] 24:11 ICDF [1] 83:3 ice [3] 62:2 62:4 62:19	including [5] 10:22 29:23 30:1 36:25 93:21	interest [4] 3:4 6:16 19:22 101:13
grasping [1] 75:12	heading [1] 10:5	ICPP [4] 43:5 47:6 47:10 53:22	inconvenience [1] 89:15	interested [3] 7:6 11:10 85:21
gravels [1] 40:8	health [6] 6:2 10:19 11:5 14:17 64:6 92:8	ID [1] 72:12	increase [2] 12:19 25:25	interesting [1] 54:7
gray [1] 16:17	health-based [1] 91:23	Idaho [30] 1:2 1:10 1:23 3:1 3:13 3:22 6:2 8:10 8:10 8:16 8:17 9:16 12:2 52:17 61:18 68:4 73:10 80:6 80:9 83:18 85:24 88:2 89:21 91:24 92:16 97:15 100:15 101:1 101:5 101:18	increasingly [1] 95:22	interim [11] 20:23 20:24 34:21 63:7 69:10 74:3 74:4 74:10 74:12 75:19 78:23
great [4] 96:25 97:16 97:24 98:6	hear [4] 4:17 61:5 87:13 90:7	Idahoans [1] 85:9	indeed [1] 32:10	intermittent [2] 43:4 81:22
greater [4] 7:23 35:19 54:5 87:21	heard [1] 34:12	idea [1] 95:17	indefinite [1] 11:21	Internet [3] 71:16 72:5 72:8
greenhouse [1] 84:7	hearing [2] 101:6 101:10	identically [1] 87:10	indicate [1] 60:8	interspersed [1] 45:17
ground [3] 9:2 40:22 80:8	heartbreaking [1] 95:22	identified [3] 7:16 46:15 74:15	indicated [1] 65:19	interval [1] 58:19
groundwater [3] 13:20 52:16 82:1	heat [2] 43:25 53:6	identifies [1] 67:19	indicates [4] 47:14 47:20 57:2 78:3	intervals [1] 59:1
group [26] 3:9 3:12 4:13 5:22 7:3 7:4 8:17 15:24 15:25 16:1 16:10 21:11 22:1 24:22 24:23 28:12 30:19 30:21 36:22 74:3 77:9 79:3 80:20 86:15 100:9	heating [1] 43:24	identify [4] 13:25 14:22 15:15 19:10	indicating [1] 33:2	intrigued [1] 28:4
grouping [2] 16:3 76:20	held [2] 4:3 18:14	identifying [3] 10:16 47:2 83:8	individually [1] 14:7	introduce [3] 5:17 21:13 73:8
groups [9] 7:2 9:24 10:6 10:10 21:25 34:11 39:14 39:20 64:19	help [1] 5:13	illustrates [1] 96:5	industrial [2] 12:14 87:11	introduce [3] 5:17 21:13 73:8
grout [1] 29:24	hereby [1] 101:5	image [1] 99:11	INEEL [26] 1:1 3:5 3:6 3:18 11:13 12:17 36:13 36:17 38:3 49:8 53:21 57:3 57:13 57:25 68:19 69:21 82:24 83:24 83:25 90:23 95:4 95:23 96:22 98:2 98:6 99:10	inventory [1] 50:17
grouted [1] 50:5	high [6] 17:1 32:4 34:16 41:24 49:14 100:11	impacts [4] 11:5 56:24 80:10 82:15	infiltration [4] 19:15 20:18 20:20 34:23	investigated [1] 3:21
growing [1] 31:12	high-level [4] 8:8 8:9 38:10 53:5	impacting [1] 92:4	influence [2] 66:3 66:5	investigation [11] 3:9 3:11 3:17 4:6 4:7 4:18 6:9 20:1 25:20 31:4 31:17
guess [10] 3:25 4:15 5:16 7:11 8:4 63:17 66:22 73:24 81:10 83:24	higher [1] 58:21	impacts [4] 11:5 56:24 80:10 82:15	information [9] 19:5 20:1 20:25 21:5 21:6 31:16 60:12 75:12 85:7	involve [2] 90:20 99:16
guru [1] 73:11	highest [3] 12:21 55:6 58:11	implement [3] 9:11 65:11 66:21	informational [1] 39:16	involved [3] 85:18 93:22 98:8
guy [1] 76:7	highly [3] 43:3 82:6 96:17	Implementability [1] 15:9	ingredients [1] 94:24	involvement [1] 79:21
guys [3] 63:21 70:19 100:12	hindsight [1] 87:25	implementation [1] 38:7	initiated [1] 20:3	iodine [11] 51:4 51:5 55:16 55:17 56:22 57:2 57:10 58:21 60:21 61:24 62:6
	hit [1] 6:17	implemented [2] 11:9 70:12	initiates [1] 99:8	iodine-129 [2] 54:23 58:12
	hits [2] 67:15 68:8	implementing [1] 45:2	injected [1] 50:15	irrigation [1] 43:22
	hold [1] 4:21	importance [2] 15:13 49:13	injection [7] 41:8 42:21 49:19 50:10 51:7 54:9 57:12	isolated [3] 29:1 32:13 53:6
	holds [1] 96:7	important [5] 42:17 51:25 64:21 84:2 90:7	input [6] 7:14 8:1 56:25 64:11 70:18 79:17	Isolation [1] 34:20
	hope [3] 6:11 9:25 86:15	impossible [1] 90:25	instance [5] 24:10 24:19 42:1 45:24 76:14	issue [6] 18:24 38:12 45:22 68:17 92:19 93:8
	hopefully [2] 46:21 62:9	impressions [1] 5:12	informational [1] 39:16	issued [1] 80:5
	hoping [2] 15:19 89:8	improvements [1] 5:14	ingredients [1] 94:24	issues [4] 7:18 12:13 49:5 82:20
	horizontal [1] 25:23	inch [1] 50:7	initiated [1] 20:3	Item [2] 38:3 38:3
	hot [5] 22:12 25:20 58:25 59:9 59:18	incidents [1] 51:9	initiatives [1] 99:8	items [1] 99:14
	house [1] 71:20	include [7] 14:2 24:6 26:25 27:22 41:21 75:1 93:14	injected [1] 50:15	itself [5] 40:5 41:14 41:19 43:3 83:14
	huge [1] 75:13	includes [1] 8:23	injection [7] 41:8 42:21 49:19 50:10 51:7 54:9 57:12	
	human [2] 10:19 64:5		input [6] 7:14 8:1 56:25 64:11 70:18 79:17	
	hundred [1] 31:24		instance [5] 24:10 24:19 42:1 45:24 76:14	
	hydrochloric [3] 8:25 9:3 32:10		institutional [3] 20:13 59:17 88:23	
	hydrofluoric [1] 31:3		INTEC [5] 1:3 8:6 47:10 99:16 99:18	
	hydrogen [1] 32:12		integrity [1] 32:4	
	hydrogeologic [1] 90:24		intended [1] 21:16	
	hydrogeologist [1] 73:12		intending [1] 48:21	
			intensely [1] 95:5	
			interbeds [3] 45:13 47:1 47:17	

Nancy Schwartz Reporting 208-345-2773

mention [5] 6:6 8:22 58:2 63:20 99:9	model [11] 47:19 48:23 56:23 57:2 58:11 58:16 61:24 62:5 63:25 82:10 82:21	Nancy [3] 1:22 101:4 101:17	note [3] 51:25 91:20 93:4	26:22 37:11 93:6 93:13
mentioned [10] 7:2 7:13 8:15 9:21 19:9 19:24 20:8 24:5 34:15 64:4	modeling [4] 47:14 57:22 58:23 82:24	nanocuries [9] 17:1 17:4 34:18 35:5 35:20 36:10 38:1 38:19 38:22	noted [1] 93:8 nothing [5] 14:2 17:14 20:7 20:12 29:3	once [9] 13:13 13:24 14:9 14:20 15:15 73:3 85:7 93:18 100:20
mentioning [1] 21:8	modules [1] 35:24	nation's [1] 8:10	notice [1] 94:5	one-half [1] 82:2
mercury [2] 50:25 56:20	moment [3] 41:11 41:17 97:14	national [10] 9:8 9:16 10:15 11:11 12:2 12:22 14:15 79:14 79:15 83:18	noticed [1] 10:4 November [2] 1:11 3:1	ones [5] 24:22 47:5 55:21 64:20 99:15
met [4] 85:22 85:24 92:7 92:15	moments [2] 5:12 34:9	nations [1] 8:8	NPDES [1] 81:21	ongoing [2] 42:14 68:20
metals [4] 25:7 25:8 25:10 29:11	Monday [2] 85:23 85:24	natural [5] 42:10 43:16 92:4 98:7	NRC [1] 91:1 NSchw208.aol.com [1] 1:25	ooze [1] 89:2
meteorological [1] 83:12	money [3] 7:22 66:14 66:16	naturally [1] 47:23	nuclear [4] 3:13 8:17 94:24 95:24	open [5] 35:15 35:25 36:2 58:19 79:23
meters [1] 59:2	monies [1] 68:5	nature [1] 36:19	nuclides [1] 42:1	opened [1] 93:19
method [2] 9:11 17:21	monitor [2] 59:1 59:13	near [1] 57:3	number [11] 9:4 17:1 17:2 18:1 51:21 58:16 64:12 68:1 69:8 75:14 88:16	operate [1] 27:14
methods [1] 75:25	monitored [3] 60:14 87:17 88:11	nearby [1] 95:12	numbers [2] 62:8 88:15	operated [1] 8:21
middle [1] 41:4	monitoring [14] 32:25 46:17 46:22 55:10 59:18 60:12 60:18 62:8 62:10 78:2 78:5 78:6 78:8 95:16	nearly [1] 55:20	numerous [1] 8:20	operates [1] 18:19
might [5] 33:2 49:22 92:7 93:11 95:20	monster [1] 86:19	necessarily [2] 76:4 86:9	NYGARD [1] 67:24	operating [7] 18:22 77:17 77:21 77:24 78:22 80:6 89:25
migrating [1] 40:13	monthly [1] 50:18	necessary [4] 23:18 29:11 77:14 78:20		operation [1] 8:22
migration [2] 50:11 58:5	months [2] 37:12 77:3	needed [4] 78:25 80:2 80:23 81:6		operational [1] 19:21
miles [5] 7:1 53:22 54:1 57:11 57:13	monster [1] 86:19	needs [1] 90:11		operations [2] 24:4 71:8
million [22] 7:21 12:23 42:23 42:24 43:14 43:14 43:18 43:20 43:21 43:22 44:3 45:5 45:6 45:6 49:25 54:19 54:24 59:24 59:25 60:2 60:4 82:2	month [1] 49:11	neither [1] 17:11		operator [1] 78:19
millions [3] 56:16 82:7 97:19	morning [1] 86:1	neptunium-237 [1] 41:22		opportunity [2] 61:9 79:10
millirems [1] 88:16	Moscow [1] 86:3	Nevada [1] 90:2		option [2] 27:6 91:17
mind [5] 5:11 20:4 49:4 62:23 86:20	most [17] 3:20 7:5 10:2 17:5 17:8 18:23 44:10 44:11 64:21 82:8 87:1 87:15 95:21 96:2 96:5 97:2 99:15	never [1] 18:20		options [9] 27:17 76:18 80:21 91:16 93:11 93:23 93:24 95:21 96:16
minimize [3] 44:19 74:19 78:21	move [7] 40:2 40:17 54:15 57:7 60:9 74:6 82:8	new [14] 52:16 69:16 71:7 76:19 77:18 79:1 79:9 80:8 80:15 80:23 81:5 81:5 98:2 99:9		orange [1] 89:2
minor [2] 50:23 63:11	moved [1] 95:19	newest [1] 8:18		order [19] 3:19 9:14 13:17 15:12 15:13 16:6 18:5 38:6 38:22 42:2 42:22 43:18 50:20 51:24 56:14 63:5 69:5 70:4 81:16
minute [3] 52:2 56:2 56:8	moves [3] 39:24 39:25 62:6	newly [1] 93:13		orders [1] 7:23
minutes [1] 63:1	moving [8] 18:18 54:10 54:11 55:14 55:14 55:20 58:4 76:10	newsletter [1] 94:19		organics [1] 29:11
miscellaneous [1] 7:4	MS [2] 80:18 84:17	next [14] 13:15 14:9 15:14 30:19 40:19 57:4 61:13 71:2 77:3 92:25 94:12 94:18 100:6 100:13		organization [1] 9:15
mission [1] 98:5	multilayer [1] 26:18	night [1] 97:4		original [1] 18:16
missions [1] 98:2	multilayered [2] 23:14 27:1	nine [2] 14:14 75:8		otherwise [2] 37:19 53:12
mistakes [2] 91:11 91:11	multistep [1] 17:23	nitrates [1] 41:21		out-of-state [1] 69:22
misunderstand [1] 82:16	must [5] 14:16 14:16 14:17 64:7 64:9	nitric [2] 8:25 9:3		out-year [1] 67:4
mixed [4] 35:17 35:21 35:22 38:14		Nitschke [2] 73:9 87:6		output [1] 35:22
mixing [1] 58:22		nonacceptable [2] 13:15 20:12		outreach [1] 85:19
mobile [2] 41:25 55:23		none [4] 65:25 78:18 79:6 84:6		outside [4] 45:18 53:22 54:2 81:19
mobility [1] 14:25		nonradioactive [1] 52:10		overall [2] 71:18 92:13
		North [3] 4:5 88:6 99:20		overhead [1] 16:15
		northwest [1] 43:7		overload [1] 97:9
		Notary [2] 101:4 101:17		overpressurization [1] 32:12
				overriding [2] 90:10 90:14

Nancy Schwartz Reporting 208-345-2773

33:16	3:10	4:6	4:13	67:1	71:17	31:18	32:2	32:9	records [3]	50:16
pretreatment [1]	6:7	6:18	7:14			32:24	33:22	53:9	60:15	63:7
52:19	8:5	9:21	9:23	-Q-		RCRA [2]		26:24	recover [1]	45:20
pretty [2]	15:25	16:14	60:1	qualifications [1]		68:25			Recovery [1]	69:10
67:19	69:16	69:19	70:16	80:3	52:12	reach [5]	29:5		recycle [1]	76:20
prevent [5]	70:25	74:25	85:20	qualities [1]		44:17	47:17	58:7	reduce [4]	20:19
23:8	86:10	98:2	98:18	quality [5]	6:3	61:20			33:6	34:22
26:9	proposing [4]	15:20		13:23	41:13	reaching [1]	44:16		reduced [1]	101:8
29:15	20:24	58:24	74:21	52:17	80:6	Reactor [2]	82:5		reduces [1]	20:18
prices [2]	propound [1]	98:3		81:23		100:10			reducing [1]	19:14
92:6	protect [7]	14:17		quantities [2]	51:19	read [3]	85:22	94:17	reduction [2]	14:24
primarily [6]	19:13	23:7	26:9	57:9		97:3			27:23	
38:15	49:7	49:7	88:5	quarter [2]	63:2	readily [1]	95:16		refer [1]	3:14
40:9	protected [4]	24:15		63:14		reading [1]	15:24		reference [2]	34:12
52:12	88:12	88:25	95:19	questions [28]	4:22	ready [1]	93:19		61:24	
primary [3]	protecting [3]	20:15		5:4	7:11	real [7]	25:22	30:11	referenced [1]	39:9
41:14	90:12	90:14		18:24	21:13	39:17	50:17	90:17	references [1]	6:18
prioritize [1]	protection [4]	5:18		23:22	27:4	92:1	92:5		referred [2]	7:7
prioritizing [2]	49:14	64:5	91:6	28:10	30:18	Realignment [1]			22:9	
66:16	provide [8]	10:17		39:11	39:12	11:17			referring [1]	38:8
priority [2]	11:4	61:6	61:9	52:24	62:24	realistic [1]	67:17		refers [1]	10:25
49:15	81:16	84:8	87:20	84:20	94:4	realize [1]	86:5		regard [2]	83:3
private [6]	87:22			99:1	99:4	reapply [1]	76:15		84:5	
27:17	provides [3]	9:15		99:24	100:1	reason [4]	20:24		regards [1]	82:9
93:3	9:23	19:4		100:11		32:13	38:20	91:4	region [2]	5:19
problem [10]	psychotherapist [1]	85:13		quick [4]	39:20	12:6	12:6	13:2	49:13	
33:3	public [26]	1:1		40:6	41:12	14:10	64:10	64:13	regional [1]	41:1
54:23	2:1	5:5	5:8	quickie [1]	61:23	95:21			registry [1]	10:11
59:16	8:1	26:16	63:8	quickly [5]	4:16	reasons [1]	45:9		regulated [2]	68:22
procedure [1]	64:11	70:25	72:6	40:17	54:17	reburied [1]	31:2		69:24	
process [14]	73:5	73:22	74:1	97:15		rec [1]	88:15		regulations [5]	68:20
35:18	79:10	79:17	79:21	quite [2]	12:8	receding [2]	58:2		73:18	81:2
70:8	85:23	87:16	89:5			58:8			91:2	
72:17	89:9	92:5	93:3			receive [3]	42:22		regulatory [2]	68:18
79:17	94:6	95:7	101:4			47:17	66:14		92:9	
84:20	101:17					received [2]	93:4		reinstated [1]	80:2
processed [4]	public's [2]	4:8				95:8			reissued [1]	52:18
38:25	7:14					recent [1]	67:12		reject [1]	90:19
47:18	published [1]	95:7				Recently [1]	43:10		related [2]	82:15
53:7	pull [4]	45:11	56:5			receptors [1]	26:10		92:1	
53:7	56:7	77:2				Recess [1]	63:15		relation [1]	93:2
8:16	pulled [1]	76:23				recharge [11]	42:13		Relations [2]	3:6
69:8	pulling [1]	77:1				44:11	44:19	44:23	4:14	
produce [1]	pump [6]	45:3				44:24	46:11	59:15	relative [1]	64:8
79:12	45:7	46:4	56:10			76:1	77:14	77:16	relatively [3]	54:17
product [1]	59:21	59:21				83:20			58:22	66:12
92:11	pumped [1]	83:17				recharging [2]	42:18		release [6]	22:18
production [4]	pumping [2]	84:4				44:7			25:21	25:23
47:21	Purdue [1]	57:18				recollection [1]	63:6		31:14	32:5
56:6	purpose [2]	29:17				recommend [2]	90:19		released [2]	22:20
88:12	39:17					93:1			47:12	
94:23	purposes [3]	23:12				recommendations [2]			releases [4]	16:9
program [7]	26:12	42:11				68:2	90:18		22:1	25:2
3:7	pursuant [3]	18:4				record [21]	4:2		remain [6]	10:24
9:13	63:6	69:25				5:6	37:12	55:14	11:20	12:1
19:22	pushing [1]	97:23				61:10	61:13	63:9	95:25	96:1
79:2	put [15]	6:22	15:1			65:11	70:2	71:1	remaining [1]	96:1
81:19	48:21	56:24	58:24			72:15	72:17	73:23	remedial [15]	3:9
10:12	64:24	68:1	83:7			74:1	77:22	89:9	4:5	4:18
18:7	86:10	88:2	88:8			89:19	90:4	94:11	20:1	26:8
19:6	88:23	90:4	98:12			94:18	101:10		33:5	37:11
7:20	100:5					recording [1]	5:8		70:9	72:19
68:3	putting [3]	22:15								
68:11										
73:13										
83:12										
100:2										
67:3										
promulgated [2]										
52:17										
80:9										
properly [1]										
7:18										
property [6]										
11:13										
11:14										
11:19										
11:21										
11:25										
13:10										
proposal [3]										
69:23										
71:7										
71:17										
proposals [2]										
72:9										
73:20										
propose [1]										
90:22										
proposed [22]										
1:1										

72:22 78:20	requesting [1]	67:10	49:10 53:19 57:3	satisfied [1]	92:9	sequestering [1]	
remediation [2] 59:6	requests [5]	67:17	60:11 61:5 61:14	saturation [1]	47:18	85:12	
59:19	67:20 71:7 71:17		80:17 88:2	says [3] 57:22 58:16		serious [1]	96:6
remedies [2] 15:4	72:9		risk [24] 10:3 10:13	60:2		seriously [1]	99:17
61:15	require [3]	17:2	10:14 10:17 10:18	scenario [3]	10:20	serve [1] 87:1	
remedy [5]	53:8 80:16		10:19 11:1 11:3	12:7 12:15		service [8]	41:9
59:14 60:18 74:10	required [2]	18:3	11:4 11:8 12:17	scenarios [3]	10:21	42:22 47:15 47:21	
74:10	36:12		12:18 12:21 12:22	12:6 13:3		47:23 49:20 54:9	
remember [2]	requirements [7]		13:14 13:15 20:11	schedule [3]	35:18	79:1	
71:12	15:1 64:8 64:9		20:12 25:6 25:8	67:7 76:2		serving [1]	85:5
remembered [1]	80:7 80:10 80:15		25:10 73:11 74:16	scheduled [1]	75:14	session [4]	4:20
61:22	91:1		87:13	schematic [1]	48:7	5:3 5:5 61:8	
remind [4]	requisite [1]	59:12	risk-based [1]	Schwartz [3]	1:22	set [1]	76:2
5:9 94:9 98:24	rereleased [1]	4:9	river [23]	101:4 101:17		setting [1]	93:7
remote [1]	residences [1]	12:12	17:17 17:17 19:13	scientists [1]	92:7	settlement [1]	68:24
removal [5]	residential [2]	12:8	33:21 41:1 42:13	scope [3]	72:18	seven [1]	69:13
33:9 37:23 45:2	13:2		43:2 43:4 43:8	72:18 92:17		several [8]	4:11
63:10	residual [2]	10:25	43:9 43:11 49:3	Scott [10]	6:1	7:8 34:11 36:5	
remove [11]	11:8		74:20 82:22 85:2	6:1 33:19 49:3		66:11 68:1 68:7	
26:20 26:21 26:22	resolved [1]	18:24	86:16 90:12 91:19	61:2 68:17 75:16		90:17	
29:21 29:24 29:25	resource [2]	69:9	91:25 94:16 95:11	76:12 76:17 82:22		sewage [2]	43:19
30:1 30:4 44:12	88:5		road [1]	screen [1]	13:25	69:12	
46:5	resources [4]	81:16	rocks [1]	seal [1]	101:14	SFE-20 [4]	5:25
removed [1]	92:4 98:7 98:8		Rocky [1]	sealed [1]	50:3	28:12 35:19 38:9	
removing [2]	responded [1]	94:10	rod [4]	sealing [1]	75:1	shallow [1]	44:1
44:24	response [1]	11:16	37:13 61:19	Seattle [1]	5:19	sharpening [1]	93:9
Reno [37]	responsibility [1]		rods [1]	second [8]	20:13	sheets [1]	4:12
33:19 33:23 39:12	97:8		role [3]	26:20 33:9 43:1		shipped [1]	37:19
41:16 46:19 46:23	responsive [1]	94:11	69:17	44:21 45:22 48:20		shit [1]	85:17
47:8 48:5 48:11	rest [1]	7:4	roll [1]	71:13		ShoBan [2]	12:11
48:14 49:10 50:16	restoration [9]	3:7	roof [1]	secondary [1]	52:11	85:23	
51:5 51:8 51:20	3:12 60:24 62:18		room [3]	Secondly [1]	90:9	shopping [1]	89:1
52:6 53:3 53:19	64:10 66:15 67:22		31:12	section [1]	94:11	short [5] 15:6 15:8	
55:11 55:16 55:22	69:21 84:5		roped [1]	sector [2]	11:22	62:18 73:24 74:9	
56:4 56:10 60:11	restore [1]	13:22	round [1]	93:23		short-term [2]	15:3
61:3 62:3 68:21	restoring [1]	62:20	routine [3]	secure [1]	11:15	74:11	
69:18 73:8 74:8	restriction [1]	91:5	51:8 54:9	sedimentary [1]		shorthand [1]	101:7
75:17 78:1 78:7	restricts [1]	26:13	RTG [1] 99:19	41:6		shortly [1]	4:10
80:4 82:14 85:18	result [3]	30:12	RTGs [1]	see [14] 15:25 16:13		show [2] 14:8 49:10	
repermitting [1]	46:17 95:5		rule [4]	16:17 31:11 39:18		shows [1]	16:16
79:8	resulted [1]	3:11	80:9 80:16	41:7 45:15 58:12		shudder [1]	98:1
replace [2]	retained [1]	87:15	run [1]	62:21 68:11 72:1		shut [1]	50:3
75:24	return [1]	44:17	62:11	74:13 75:4 100:21		side [4]	4:25 20:15
report [4]	reuse [1] 76:15		running [3]	seeing [2]	42:2	31:12 60:2	
62:14 86:7 86:9	revert [1]	12:10	17:15 75:3	57:20		sign [3]	4:1 37:7
reporter [1]	reverted [1]	12:10	runs [2]	seem [1] 95:21		72:16	
Reporting [1]	review [6]	60:16		select [2]	35:1	signals [1]	46:25
reports [2]	70:1 72:6 75:19			72:12		signatories [1]	69:6
78:9	75:22 75:23			selected [2]	71:19	signature [1]	37:12
repositories [1]	reviewing [2]	99:1		91:18		signed [5]	4:2
repository [1]	100:1			sell [1]	12:11	61:19 65:8 77:22	
represent [1]	revised [1]	4:7		selling [1]	13:10	94:12	
representative [1]	revisited [1]	60:7		send [4]	6:23 21:2	significant [8]	28:23
27:19	RFP [1] 71:15			85:20 86:11		40:11 40:19 40:25	
represented [1]	RFPs [2]	70:23		senior [1]	34:9	44:8 44:11 45:18	
representing [2]	71:4			sense [5]	15:20 90:9	92:15	
5:18 5:22	RI/FS [2]	62:14		15:22 16:5		similar [6]	26:24
represents [2]	86:8			90:17		45:14 78:24 79:2	
16:10	right [18]	7:15		sensitivity [1]	62:4	81:25 82:5	
reprocessed [1]	30:13 31:13 35:16			September [7]	72:13	simple [2]	68:12
94:23 95:1 96:8	36:20 38:18 39:9			72:13 72:14 75:17		79:5	
reprocessing [3]	43:6 46:19 47:25			76:13 80:5 101:20		simply [2]	59:13
request [6]							
4:8 67:1 67:5							
76:25 100:4							

93:18		soils [32]	5:21	spills [6]	8:20	32:11		sucked [1]	97:20
Simpson [12]	3:3	5:24 5:25	16:7	18:17 18:20	18:21	step [2]	13:15 94:23	sudden [1]	89:2
3:5 62:22	63:1	16:19 17:7	18:10	24:24 96:10		steps [3]	17:24 18:4	suffering [1]	85:16
63:13 63:16	94:9	18:14 18:15	19:15	sports [1]	48:25	87:21		sufficient [2]	65:10
98:10 98:17	98:24	19:17 20:2	20:19	spot [4]	48:21 59:9	Steve [3]	2:4	81:16	
99:24 100:17		20:22 21:2	21:14	59:18 98:12		62:22 89:19		suggest [1]	93:9
sisters [2]	85:15	21:23 23:19	24:20	spots [2]	25:20 59:1	stick [1]	45:11	suggesting [1]	91:9
87:8		34:12 34:16	34:19	spring [2]	100:7	still [8]	18:15 32:2	suggestions [1]	15:21
site [33]	3:20 7:1	34:22 34:24	36:22	square [2]	7:1	36:20 37:4	46:5	summarize [1]	68:18
9:12 10:25	11:1	37:17 38:11	38:12	ss [1]	101:1	52:23 78:22	92:16	summary [2]	9:23
11:3 22:6	22:7	46:4 64:25	69:19	St [1]	56:13	stop [4]	9:20 44:7	94:11	
24:23 30:21	30:22	96:12		Stabilization [1]		44:15 77:14		summer [2]	61:13
30:22 31:2	31:4	sole [2]	56:17 90:21	29:17		stopped [1]	85:1	94:13	
31:5 31:6	31:19	sole-source [1]	88:3	stabilize [2]	29:19	storage [5]	22:7	Superfund [4]	9:10
31:24 33:7	37:24	soliciting [1]	72:10	29:22		24:25 35:23	36:2	9:12 10:23	15:2
57:20 57:22	69:2	solids [2]	52:21	stack [1]	16:21	96:9		supplies [2]	15:10
72:5 72:8	90:1	81:3		stage [1]	20:2	strategically [1]	46:22	88:13	
90:21 90:23	91:15	solubilizes [1]	40:1	stainless [1]	22:12	stream [2]	43:4	support [4]	76:23
91:16 91:18	92:22	solution [2]	24:25	stakeholder [1]	15:17	81:22		77:7 87:9	100:21
99:11		93:6		stakeholders [1]	70:7	Street [1]	1:23	supporting [1]	4:11
site-wide [2]	47:7	solutions [3]	23:25	standard [7]	42:4	stressed [2]	31:5	supposed [2]	72:12
96:5		24:3 28:15		53:11 54:6	55:5	31:7		94:12	
sites [19]	10:2	solvents [1]	52:9	57:21 91:23	92:8	stretching [1]	56:12	surface [14]	5:24
10:3 11:11	11:12	sometime [4]	42:8	standards [8]	41:15	stringent [2]	80:10	40:2 40:3	40:14
16:7 22:8	23:15	61:13 73:25	92:24	47:25 51:16	52:11	91:5		40:23 42:15	42:19
24:24 25:5	25:8	somewhat [1]	58:7	54:14 80:7	81:13	strontium [3]	38:15	44:14 47:12	50:6
25:9 25:11	25:12	somewhere [3]	30:22	92:15		39:6 51:19		50:11 64:25	75:1
25:15 26:18	28:8	soon-to-be-published [1]	94:18	standpoint [1]	86:25	strontium-90 [13]		83:15	
30:21 33:12	94:25	sorption [1]	45:25	Star [2]	99:12 99:19	41:22 42:1	44:16	survey [1]	46:24
sitting [2]	16:18	sorry [4]	28:2 34:9	start [7]	6:12 21:23	45:25 46:2	50:21	Susan [1]	73:11
17:13		53:3 98:11		44:11 57:7	63:17	51:23 53:20	53:24	suspected [1]	31:3
Situ [1]	29:17	82:4 84:7		77:1 83:8		54:8 54:17	54:19	swimming [1]	45:10
situated [1]	24:18	sound [1]	99:4	started [2]	7:11	58:3		system [10]	5:25
situation [3]	39:4	source [9]	42:5	15:7		structure [4]	24:13	19:9 28:12	29:1
78:24 79:19		42:18 43:1	44:11	starting [2]	58:7	29:20 29:22	30:1	30:10 42:20	43:24
situations [2]	62:1	44:13 47:19	56:17	66:24		structures [1]	5:24	53:6 79:14	79:16
78:19		59:15 90:21		starts [1]	71:13	studies [2]	59:7	systems [1]	81:1
size [1]	96:9	sources [10]	42:6	state [23]	3:22	84:13			
sketchy [1]	20:14	42:8 42:10	42:17	6:2 7:2	10:11	study [6]	3:10	-T-	
skill [1]	101:11	44:19 44:23	44:24	18:12 19:7	36:16	4:6 4:19	6:9	table [7]	5:1 9:22
slide [3]	14:9 53:25	46:11 84:9	96:3	44:17 53:10	56:25	20:2 75:23		10:5 60:2	61:7
62:15		south [2]	53:22	58:7 66:3	68:23	stuff [2]	84:24 85:14	75:7 86:7	
slightly [1]	52:10	54:1		69:6 69:15	76:16	sub-surface [1]	45:1	tablet [1]	4:25
slow [1]	20:21	spaces [1]	40:18	78:9 90:2	90:6	subcontract [1]	71:19	tackle [1]	97:3
slowed [1]	58:5	sparging [1]	88:8	92:16 101:1	101:5	subject [7]	18:2	takes [4]	7:24 8:24
sludge [11]	28:21	speak [2]	75:22	101:18		39:6 52:7	60:16	8:25 19:22	
28:24 29:20	29:23	97:14		state's [2]	9:13	64:16 69:19	73:17	taking [4]	57:22
29:25 30:5	30:10	speaking [1]	94:15	68:18		submit [1]	78:9	67:15 87:21	94:1
30:13 35:8	35:19	specialized [1]	57:14	statement [2]	17:25	subsidiaries [1]		Talley [6]	5:22
36:3		specific [1]	15:24	97:17		89:22		5:23 21:13	21:23
small [2]	51:10	specifically [1]	74:7	states [1]	11:12	substantial [1]	37:11	66:19 71:5	
87:16		spectroscopy [1]	57:15	Statesman [1]	100:15	substantive [1]	64:7	tank [34]	5:21 5:25
Snake [16]	6:4	57:15		status [1]	69:10	subsurface [3]	40:7	16:9 16:10	16:11
17:16 17:17	19:13	speed [1]	62:5	statute [1]	15:2	46:7 46:16		16:12 17:6	17:7
41:1 42:13	49:3	speedy [1]	97:11	statutory [2]	15:1	Subtitle [1]	26:25	17:15 18:10	18:18
74:20 82:21	86:16	spending [1]	97:6	37:10		successful [2]	47:2	18:19 18:21	18:22
90:12 91:19	91:24	spent [4]	68:23	stay [2]	63:20 89:17	73:21		19:2 19:12	19:18
94:16 95:11	95:25	94:24 95:1	99:21	steam [2]	43:25	successfully [1]		20:2 24:2	28:12
snow [1]	43:16	sphere [1]	81:19	44:2		11:9		28:13 28:17	28:19
soil [20]	10:5 16:1			steel [3]	22:12 22:20	such [8]	9:9 26:3	29:4 29:20	34:16
16:24 17:3	22:17					26:15 27:22	29:9	34:22 34:24	38:11
24:7 24:21	25:4					30:23 62:1	73:19	64:24 88:9	96:7
26:5 32:6	35:4							96:10 96:14	
47:12 48:13	69:22							tanks [10]	16:16
82:7 95:13	95:18								
95:20 96:15	96:20								

16:18 18:2 18:6	through [27] 4:15	treated [3] 30:9		upset [1] 51:10
18:7 31:3 33:1	10:9 14:25 18:16	38:25 52:4		usable [2] 42:10
33:1 53:5 96:9	19:15 20:18 21:25	treatment [19] 14:3		44:17
tanks' [1] 17:22	22:16 30:9 40:14	14:25 15:6 26:21		usage [2] 77:20
target [2] 18:18	50:12 51:2 52:15	33:9 35:17 35:21		83:25
59:8	53:6 58:6 61:7	35:23 39:3 43:19		used [7] 19:6 27:18
team [4] 70:6 70:11	69:1 70:24 73:4	59:7 69:2 69:12		28:13 28:14 50:8
80:25 87:19	76:16 83:6 86:14	80:7 80:17 80:21		64:11 88:1
technetium-99 [1] 41:21	86:15 89:3 89:22	81:1 81:1 84:9		uses [3] 44:18 57:25
technical [2] 14:21	97:4 97:21	tremendously [1] 83:23		58:15
86:7	throughout [2] 40:3	60:7		using [3] 9:11
technique [1] 57:15	Thursday [1] 86:3	trend [1] 58:4		57:14 99:10
technologies [5] 14:1 27:24 59:8	tiered [1] 13:12	tribal [1] 13:11		usually [1] 20:9
73:10 84:6	tighter [1] 40:16	tribe [3] 12:10 12:11		utilized [1] 49:19
technology [8] 3:13	timed [1] 46:24	85:23		
8:17 14:1 14:3	today [11] 8:20	trichloroethylene [1] 88:8		-V-
14:4 21:4 30:4	13:5 19:17 20:25	trick [1] 48:20		vacation [1] 100:18
85:12	21:5 38:10 47:25	triggers [3] 74:5		vadose [1] 46:13
term [5] 14:24 15:6	55:3 58:13 87:21	74:7 74:9		valid [1] 52:15
15:8 23:4 74:9	100:18	trillions [1] 56:16		Valley [1] 86:2
terms [12] 8:15	together [9] 6:7	tritium [10] 41:22		value [7] 7:21
15:5 15:25 41:14	6:23 56:25 67:1	50:21 51:7 51:14		45:8 60:3 60:3
48:22 62:18 64:19	76:23 77:1 77:2	51:15 53:25 54:8		68:9 91:25 92:1
68:19 73:17 78:4	77:4 100:5	54:18 54:18 58:3		variable [1] 43:3
86:21 91:8	tomorrow [1] 91:12	TRU [5] 30:14 30:14		variations [1] 14:4
Test [4] 4:5 82:5	tonight [9] 3:4	37:18 38:2 38:16		variety [1] 90:3
88:6 99:19	3:8 4:12 5:7	truck [1] 62:15		various [6] 8:15
thank [10] 21:21	5:17 7:10 64:2	true [1] 101:9		11:6 24:3 53:7
32:14 36:14 39:13	86:3 97:10	trustees [1] 64:17		60:5 72:10
47:8 60:20 79:24	too [1] 71:10	try [14] 10:17 10:21		vault [2] 28:18 30:2
93:25 98:9 100:19	took [2] 24:19 62:23	11:7 14:21 21:3		vegetation [2] 31:5
thanks [5] 3:3	top [6] 25:13 27:2	44:12 59:8 64:2		31:6
28:9 98:10 98:23	28:18 48:18 49:23	67:6 68:5 71:19		Venture [2] 99:12
100:20	50:6	86:13 86:17 86:25		99:19
themselves [3] 46:4	total [7] 46:6 50:1	trying [10] 13:19		versus [4] 27:12
51:17 65:8	51:22 52:9 52:9	13:21 49:6 49:7		27:13 67:16 93:3
thereafter [1] 101:8	52:21 81:3	66:16 77:2 82:25		vertical [1] 25:23
thereby [1] 20:20	touched [5] 32:17	83:9 87:19 88:5		view [1] 90:12
therefore [2] 46:8	33:15 76:12 76:17	Tuesday [1] 86:1		viewing [1] 73:5
64:9	76:24	tumors [1] 12:19		vitrification [2] 21:4 27:23
therein [1] 101:7	toward [2] 57:7	turn [6] 6:10 24:11		volcanism [1] 62:20
thermal [2] 32:7	95:16	33:18 39:20 77:8		volume [7] 14:25
99:13	towards [4] 11:23	94:1		25:24 48:9 56:1
thickness [1] 41:3	17:16 56:13 90:13	turned [2] 26:15		56:11 56:14 59:22
thinking [1] 84:25	toxicity [4] 7:23	77:8		
third [5] 33:10 43:9	7:25 14:25 52:13	turns [1] 36:6		-W-
54:21 59:19 75:6	toxics [1] 15:7	Twin [1] 86:1		WAG [5] 7:7
thought [12] 7:12	trace [1] 57:9	two [23] 6:14 14:16		8:16 8:16 9:25
33:1 35:14 40:13	track [1] 55:14	17:24 18:2 18:4		17:6
70:20 74:16 84:22	trade [1] 86:23	18:7 22:8 26:19		wait [2] 49:5 62:21
86:20 88:18 88:20	traditional [1] 59:20	30:6 30:21 33:12		walk [1] 89:15
97:25 98:1	transcript [1] 101:9	37:25 39:14 39:20		Warm [2] 78:24
thousand [2] 51:11	transition [1] 74:1	45:4 54:10 57:16		82:4
83:10	transpiration [1] 83:19	69:11 72:23 79:11		warming [3] 82:11
threats [1] 96:6	transport [2] 18:10	81:2 82:20 94:19		82:16 84:3
three [10] 6:6	56:23	two-year [2] 66:7		warranted [4] 23:6
23:10 33:7 56:19	transuranic [3] 8:11	66:24		26:8 29:14 33:5
61:19 68:22 70:10	17:3 17:4	type [4] 22:3 52:19		washed [3] 31:1
74:14 77:7 94:25	treat [8] 23:18 29:22	90:24 101:8		34:1 34:3
three-way [2] 70:6	29:25 29:25 30:15	types [2] 62:13		waste [61] 3:9
70:8	45:3 45:7 59:21	69:23		3:11 4:13 5:21
threshold [3] 14:20	59:21	typically [2] 9:9		
15:14 64:5	treatability [1] 59:6	67:9		
		typos [1] 10:8		

7:2	7:3	7:3	Web [1] 71:9	writing [1] 71:1		
7:22	8:8	8:9	Wednesday [2] 1:11	written [3] 61:6		
8:11	8:17	9:13	3:1	70:23 94:20 98:15		
18:2	19:3	19:7	weeks [1] 80:18	98:23		
22:10	22:21	23:23	Welcome [1] 3:3	wrong [1] 80:3		
25:2	27:23	34:20	Welding [1] 30:24			
35:17	35:21	35:22	Welfare [1] 6:2			
37:16	37:23	38:10	wells [10] 44:1	-Y-		
38:14	38:17	39:3	46:17 46:22 47:21	yards [2] 25:16		
42:19	42:23	44:14	55:10 56:3 56:6	31:24		
49:20	49:25	50:2	58:24 59:1 88:12	year [20] 18:1 42:25		
52:8	53:1	53:5	wet [1] 43:10	43:10 43:11 43:12		
64:19	69:11	69:24	whatnot [3] 34:12	43:12 43:15 43:19		
75:25	78:25	80:7	51:11 53:7	43:21 43:22 43:23		
82:5	89:24	91:3	whatsoever [1] 66:1	44:3 52:15 54:18		
91:8	92:3	92:20	wherever [1] 36:11	54:19 54:24 66:8		
92:21	93:19	95:3	whole [3] 37:2	67:4 75:18 88:16		
95:14	95:15	96:20	56:11 81:7	year-round [1] 43:11		
100:8	100:9	100:12	wildlife [2] 32:1	years [26] 8:20		
wastes [2] 91:13			32:2	9:4 12:8 13:4		
watch [1] 59:14			wind [3] 35:6 35:20	13:6 32:3 44:18		
water [122] 6:4			35:23	47:25 57:4 57:25		
19:13 19:15 20:16			winter [1] 31:1	58:14 60:13 60:13		
20:18 20:19 22:3			WIPP [13] 17:3	60:17 62:21 64:12		
24:25 25:3 32:11			21:3 30:15 34:13	66:11 67:12 67:14		
33:19 39:15 39:25			34:18 35:6 35:15	68:7 68:9 72:23		
39:25 40:11 40:12			35:24 35:24 35:25	78:25 83:10 83:12		
40:12 40:13 40:17			37:19 38:16 38:18	84:1		
40:20 40:25 41:13			WIPP-ready [1] 36:1	yesterday [1] 91:11		
41:14 41:18 41:19				yet [5] 6:13 10:6		
41:21 41:25 42:4			within [21] 28:16	86:22 95:1 96:14		
42:6 42:7 42:7			33:23 37:11 40:18	-Z-		
42:10 42:11 42:12			44:18 49:8 51:14	zone [10] 40:3		
42:16 42:17 42:18			54:5 57:21 57:25	40:11 40:15 40:19		
42:20 42:23 43:1			57:25 58:20 62:21	40:25 43:2 44:7		
43:23 44:4 44:6			64:10 67:17 76:21	46:13 59:3 59:9		
44:13 44:14 44:25			77:12 77:24 81:5	zones [3] 40:24		
45:12 45:21 46:2			83:1 92:17	45:18 58:20		
46:5 46:11 46:15			without [4] 57:22			
47:3 47:4 47:7			59:14 84:25 85:11			
47:9 47:17 47:18			WITNESS [1] 101:14			
47:24 47:25 48:11			wondered [1] 100:16			
48:12 48:13 48:25			wonderful [1] 87:25			
49:25 50:2 50:12			wondering [4] 81:11			
51:15 52:4 52:8			82:10 85:14 89:9			
52:11 52:12 53:1			Woody [1] 71:23			
53:2 53:10 53:12			word [1] 7:9			
54:4 54:5 54:14			words [7] 10:25			
55:5 56:1 56:5			13:16 20:7 38:25			
56:11 56:11 56:15			53:15 92:14 99:8			
56:17 57:21 58:6			worked [1] 65:22			
58:9 58:22 62:6			worker [2] 19:16			
62:11 62:12 62:12			87:17			
64:23 69:11 75:3			workers [1] 88:12			
75:25 76:1 76:20			world [1] 57:16			
77:3 77:20 79:12			worms [1] 36:4			
79:13 80:6 80:7			worse [1] 15:4			
80:8 81:22 82:19			worth [1] 14:19			
83:16 83:17 83:23			wrap [2] 39:14 99:3			
83:25 84:4 88:9			wrapping [1] 99:5			
88:10 88:13 88:14			write [1] 4:25			
95:12 95:13 97:20			writer [1] 80:13			
98:7						
Waterloo [1] 57:17						
waters [1] 53:4						
Wayne [6] 5:19						
5:20 6:10 66:23						
72:3 73:23						
ways [1] 79:11						